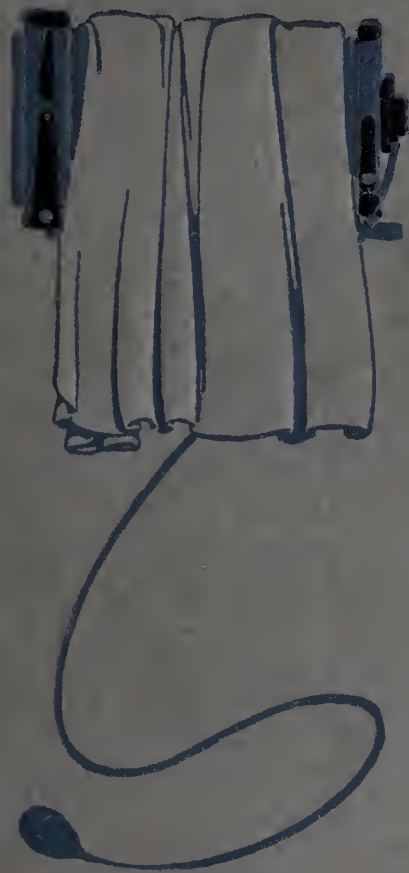


1921 (Issued July 20, 1921) P1

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

FOUNDED MAY, 1900

DATE OF ISSUE AND TIME OF PUBLICATION

CAMERA CRAFT OF 1921

June, 1921 issue, published.....July 26th, 1921

July, 1921 issue, published.....August 16th, 1921

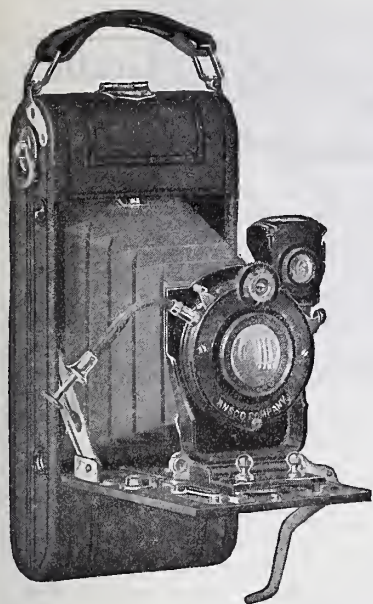
August, 1921 issue, published.....September 6th, 1921

September, 1921 issue, published....September 27th, 1921

October, 1921 issue, published.....October 18th, 1921

November, 1921 issue, published.....November 8th, 1921

December, 1921 issue, published.....December 1st, 1921



*See Them All—Then Buy
the Master Camera*

The Ansco V-P Speedex No. 3

for

2¼ x 3¼ Pictures

A WONDERFUL little camera with a world-wide reputation—a safe selection for all who want the best.

So small and light and compact that you can carry it with comfort anywhere you go, with assurance of getting good pictures whenever occasion offers.

A favorite with travelers, explorers, newspaper men, and other particular people who demand efficiency in small size. For hand-exposure control over a wide range of light conditions, for a high average of good negatives made with a minimum of bother, for sturdiness, and for rightness and beauty of design, the ANSCO V-P SPEEDEX No. 3 is the admitted leader of its class,—tried and not found wanting.

Slip it into your pocket when you leave home in the morning. Take it on your motoring trips, or use it on your vacation. When lightly clad for a hike or a climb you can carry it in your hip pocket or its holster case and hardly know it's there.

Built for speed, for precision, and for *service*, it is a permanent outfit that will give you lasting satisfaction.

Prices (including the excise war tax), from \$36 to \$80, according to lens equipment.

Send for instructive explanatory folder, a big help to anyone considering a camera of this type.

ANSCO COMPANY

Binghamton, N. Y.

Lenses

Kodaks

Lasky's

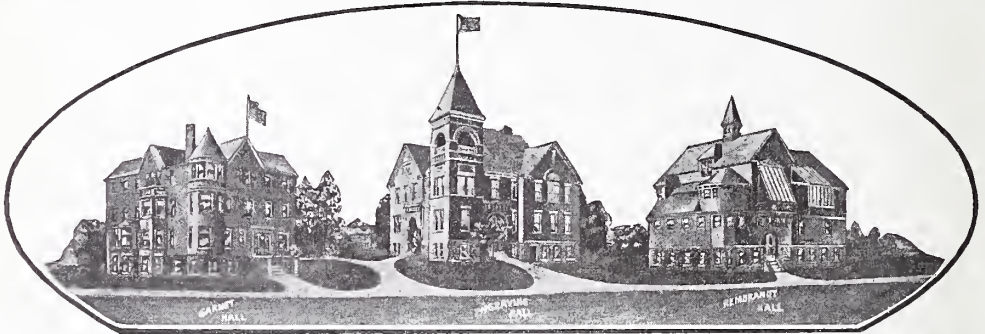
Graflex's

832-834 Market Street

Optician

San Francisco, Calif.

No. 3 Ansco Speedex, Tessar Ic f-4.5 lens, same as new. Regular \$80.00.....	\$65.00
Eastman V. P. Kodak, B. & L. Kodak Anas., f-6.9. Same as new.....	22.50
Eastman V. P. Kodak, single lens. Perfect condition	4.50
Pocket Premo, 2¼x3¼. Little shop worn	9.00
3A. Film Plate Premo, Spec. Zeiss Kodak, f-6.3, Comp. Perfect	60.00
3A Special Kodak, f-6.3 lens, Compound shutter	61.50
3A Compact Graflex, Tessar Ic lens, roll holder and case. Like new	170.00
3A Graflex, perfect working order	45.00
9/12 cm. Ica Ideal, three plate holders, (no lens).....	12.50
7/11 Eastman View No. 2, (New). Regular \$63.18	46.50
12-inch Goerz Dagor, f-6.8, in barrel	85.00
4½-inch Goerz Dagor, in Compound shutter	32.50
4¾-inch Berlin Dagor, in Eggeemann shutter	42.50
1 6-inch Ross Homocentric in barrel. Perfect	20.00



LEARN PHOTOGRAPHY

BETTER POSITION—BETTER PAY

Many opportunities are now open to ambitious men and women. For twenty-eight years we have successfully taught

PHOTOGRAPHY PHOTO-ENGRAVING and

THREE-COLOR WORK

Our Graduates Earn \$35 to \$100 a Week. We assist them to secure these positions. Now is the time to fit yourself for an advanced position at better pay. Terms easy; living inexpensive. Write for catalog—TODAY.

ILLINOIS COLLEGE OF PHOTOGRAPHY

Box CC, 907 Wabash Avenue

Effingham, Illinois

Please Mention Camera Craft when Corresponding with Advertisers.



CAMERA CRAFT

A Photographic Monthly

Entered at the Postoffice in San Francisco as Second-Class Matter. Copyrighted, 1921, by Camera Craft Publishing Co.

CONTENTS FOR JUNE, 1921

The Old Oak (Frontispiece)	By Otto C. Schulte	
Soft Focus Lenses	By H. D'Arcy Power, M. D.	177
Back to Normal	By Jas. H. Smith	184
The S. Q. Developer		185
Our Wild Flowers: Oregon Grape.....	By A. F. Turner	186
Pictures, Pastime and Profit.....	By Frank Belmont Odell	187
"Get the Picture"	By Frank B. Howe	191
View Holder for Stereoscope	By James N. Doolittle	193
Photographic Wastefulness.....	By Theodore E. Peiser	195
Editorial		198
Frank S. Noble—Our Magazine This Month—The Gum Process.		
A Photographic Digest		201
The Anaglyph—Ives' Medico-Chromograms—Autochrome Portraiture— A New Green Sensitizer—Cascade Washers.		
The Amateur and His Troubles.....		205
On Choosing a Camera.		
International Photographic Association.....		207
Notes and Comment		208

Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. The date on the address label on the wrapper shows the time to which each subscriber has paid. Thus: Jan. 21, means that the subscription expires with the number dated January, 1921. ¶Renewing—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. ¶New Address—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. ¶Dealers—All photographic supply dealers and new dealers are authorized to receipt for subscriptions in our name.

Subscription Price, \$1.00 Canada, \$1.25 Foreign, \$1.50

Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California.

FOREIGN AGENTS:

Australia	{	- - - - -	Harringtons, Ltd., Sydney
England	-	- - - - -	Kodak, Australasia, Ltd., Sydney
Malta	-	- - - - -	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
New Zealand	{	- - - - -	Do Agius Catania, 41, Sda. Reale, Valletta
	-	- - - - -	Richard Hill, Matlock House, Devonport, Auckland
	-	- - - - -	Waterworths Limited, 58 Queen St., Auckland
Philippine Islands	-	- - - - -	Waterworths Limited, 286 Lambton Quay, Wellington
Japan	-	- - - - -	F. O. Roberts, Manila
China	-	- - - - -	K. Kimbel, Yokohama
	-	- - - - -	Squires, Bingham & Co, Shanghai

August Camera Bargains

1 $\frac{5}{8}$ x2 $\frac{1}{2}$ Vest Pocket Kodak (single lens). List price, \$8.00.....	Special	\$5.25
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ Vest Pocket Kodak, with f-7.7 lens. List Price, \$15.00	Now	10.25
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ O Vest Pocket Ansco Camera, with Ansco f-6.3 lens. List Price, \$25.00	Now	18.75
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ O Graphic Camera, fitted with Zeiss Kodak lens, f-6.3. List price, \$64.00.....	Now	47.50
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ Tea Atom Camera, Hekla lens, including 3 single plate holders.....	Special	15.00
2 $\frac{1}{4}$ x2 $\frac{1}{4}$ Carbine Camera, fitted with Beck Mutar lens, f4.9, in Compound shutter.....	Special	40.00
2 $\frac{1}{4}$ x2 $\frac{1}{4}$ Carbine Camera, fitted with Carl Zeiss Triotor lens, f-6.3.....	Special	55.00
2 $\frac{1}{4}$ x3 $\frac{1}{4}$ No. 1 Jr Kodak, with f-7.7 lens. List price, \$23.00	Now	17.75
2 $\frac{1}{4}$ x3 $\frac{1}{4}$ No. 2 V. P. Ansco Camera, with Ansco Anastigmat lens, f-6.3. List Price, \$27.50.....	Now	22.50
2 $\frac{1}{4}$ x3 $\frac{1}{4}$ No. 1 Sagamore Camera, with Wollensak lens, f-6.3 and Optimo shutter. List price, \$48.00	Now	37.50
2 $\frac{1}{2}$ x4 $\frac{1}{4}$ 1A Ansco Camera, with R. R. lens. List price, \$23.00	Now	16.75
2 $\frac{1}{2}$ x4 $\frac{1}{4}$ 1A Graflex Camera, with Zeiss Kodak lens, f-6.3. List price, \$132.75	Now	97.50
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ No. 3 F. P. Kodak, with f-7.7 lens. List price, \$28.00	Now	22.75
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ Klimax Camera, with Aldis f-7.7 lens, including carrying case, and film pack adapter.....	Now	35.00
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ Filmplate Camera, fitted with Rodenstock Euryrhar lens, f-6.8.....	Special	47.50
9x12cm. Goerz Ango Camera, fitted with Goerz Celor lens, including case, 3 plate holders and one film pack adapter. List price, \$125.00	Special	87.50
2 $\frac{5}{8}$ x4 $\frac{7}{8}$ No. 2C Jr Kodak, with f-7.7 lens. List price, \$25.09	Now	18.75
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Premo No. 8 Camera, with R. R. lens. List price, \$25.00	Now	18.75
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Filmplate Camera, with R. R. lens. List price, \$26.50	Now	18.75
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Kodak, with R. R. lens. List price, \$27.00	Now	18.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Kodak, with f-7.7 lens. List price, \$32.00	Now	25.25
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Filmplate Spl Camera, with Collinear lens, f-6.8 in Compound shutter	Special	52.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Graflex Camera (no lens). List price, \$120.00	Now	82.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Graflex Camera, with 1c Tessar lens, f-4.5. List price, \$200.00.....	Now	145.00
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Compact Graflex Camera (no lens). List price, \$120.00.....	Now	82.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Compact Graflex Camera, with 1c Tessar lens, f-4.5. List price, \$210.00.....	Now	152.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 4x5 Sanderson Camera, with Goerz Dagor lens, f-6.8, in Hex shutter, including carrying case, 2 adapters and 9 plate holders.....	Special	145.00
4x5 Auto Graflex Camera, fitted with Cooke lens, f-4.5	Special	125.00
4x5 R. B. Cycle Graphic Camera, fitted with Zeiss Kodak lens, f-6.3, including case. Almost new. List price, \$140.00	Special	82.50
4x5 R. B. Cycle Graphic Camera, fitted with No. 10 Zeiss Protar lens, f-6.3, in Hex Acme shutter, including case. List price, \$220.00	Now	175.00
4 $\frac{1}{4}$ x6 $\frac{1}{2}$ 4A Carbine Film Camera, R. R. lens	Special	16.75
4 $\frac{1}{4}$ x6 $\frac{1}{2}$ 4A Folding Pocket Kodak, with R. R. lens. List price, \$35.00	Now	22.50
4 $\frac{1}{4}$ x6 $\frac{1}{2}$ 4A Conley Plate Camera, with R. R. lens, including 4 plate holders.....	Special	32.50
5x7 Filmplate Camera, with R. R. lens. List price, \$35.00	Now	22.50
5x7 Premo No. 9, with R. R. lens. List price, \$55.00	Now	40.00
5x7 Auto Graflex (no lens), old style, including magazine plate holder	Special	65.00
5x7 Compact Graflex Camera, fitted with Goerz Dagor lens, f-6.8. List price, \$234.00.....	Now	195.00
5x7 Press Graflex, fitted with 1c Tessar lens, f-4.5. List price, \$300.00	Now	185.00
5x7 Century View Camera (no lens), including case. List price, \$52.70	Now	32.50
45x107mm. Ernemann Stereo Reflex Camera, fitted with Goerz Dagor lens	Special	125.00
3 $\frac{1}{2}$ x7 Brownie Stereo Camera (single lens).	Special	12.50
No. 5 Cirkut Camera (complete). List price, \$150.00	Now	105.00
14x17 Skyscraper Camera (no lens)	Special	110.00

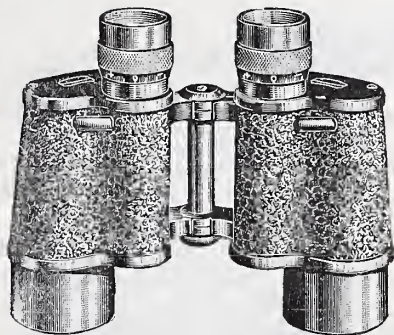
THE LARGEST CAMERA EXCHANGE ON THE PACIFIC COAST

HENRY G. DE ROOS, INC.

88 THIRD STREET

SAN FRANCISCO, CAL.

Please Mention Camera Craft when Corresponding with Advertisers.



PRISM BINOCULARS

Zeiss-Hensoldt-Bausch & Lomb

Whatever the activity may be—motoring, touring, yachting, hunting, “hiking,” attendance at the race track, athletic or aviation fields, a Binocular brings the action “close up” to be enjoyed with renewed interest and pleasure.

From the compact $3\frac{1}{2}$ X Pocket or Opera Glass, which magnifies each object three and one-half times with remarkable clearness and brilliancy, to the powerful 18X Field Glasses, apparently bringing every distant object eighteen times nearer—the Zeiss, Hensoldt, and Bausch & Lomb Binoculars represent the highest manufacturing achievements.

Add a Binocular to your outing equipment. We have a large assortment and will be glad to help you make a suitable selection.

Send for free descriptive pamphlets.

*Howland &
Dewey Co*
E
EASTMAN KODAK COMPANY

510 South Broadway

Los Angeles, Calif.

“Largest Photo Supply House on the Pacific Coast”

Do You Know —

There is a completely equipped CAMERA FACTORY
in San Francisco?

We Make



SHARMAN CAMERA WORKS
5 Kearny St. San Francisco



PETCO System of TANKS

SIMPLE TO HANDLE
COMPACT and CONVENIENT
ECONOMICAL to OPERATE

A BENEFIT TO YOUR BUSINESS

Two Sizes—24 Roll Capacity; 60 Roll Capacity
Guaranteed Acid Proof and Trouble Eliminators

Ask Your Dealer, or Write Direct for Descriptive Booklet

"PAR-EXCELLENCE" TANK CO.

1059 Teutonia Avenue

Milwaukee, Wis.



PROVED BEST BY TEST



Print obtained from the half of the negative which had been intensified for one and one-half minutes in Victor Intensifier.

This side shows print obtained from the half of the negative which was not intensified.

DON'T DISCARD

as worthless those films or plates in which the detail is too faint to print up well. Save them at a few cents' cost by immersion in

VICTOR INTENSIFIER

until desired density is obtained. It is simple, powerful and inexpensive.

Your Dealer Carries and Recommends It

SIZES

PRICES

No. 1 Powder, makes	4 ozs.....	25 cents.	By mail.....	30 cents
No. 2	"	8 "	45 "
No. 3	"	16 "	85 "

Jas. H. Smith & Sons Co. 3541 Cottage Gr. Ave.
CHICAGO

COMPLETE YOUR FILES

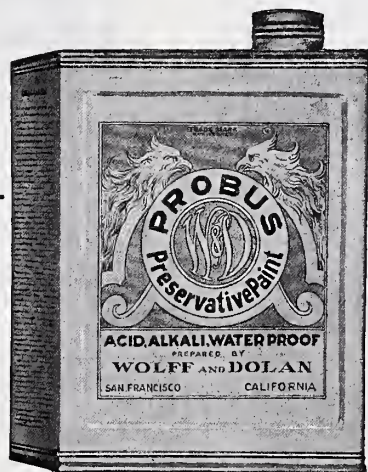
We can supply back numbers
from May 1900 to current issue

Camera Craft Publishing Co.

Claus Spreckels Building

San Francisco, Cal.

Please Mention Camera Craft when Corresponding with Advertisers.



Safe for All Photographic Purposes

Here is the simple, modern, inexpensive way to keep your workroom equipment serviceable and looking like new—just a coating of Probus Preservative Paint and the trick is done. It's really remarkable how easily and how quickly Probus can be applied—all by yourself, without any mess or worry. You know Probus has always been absolutely safe;—it does not affect the most sensitive solutions.

Use Probus for dark-room walls, shelves, tables, etc. It lends itself splendidly to the home production of wooden trays, sinks and the various receptacles used in photographic workrooms. Applied to wood, fibre or similar compositions, tin or iron, it renders the material proof against water, acid, alkali and rust.

Just try Probus. You can't imagine how satisfactory it is—until you use it.

Half Pint Trial Tin, 45 cents

Pint, 80 cts.; Quart, \$1.25; Half Gal., \$2.05; Gal., \$3.75
Five Gallons, \$16.75

At Your Dealer's

WOLFF & DOLAN

MANUFACTURERS

220 Post Street

San Francisco

HOW TO BECOME A PROFESSIONAL PHOTOGRAPHER



EARNING \$35 TO \$125 A WEEK

An interesting illustrated booklet (free) on choosing a vocation, the exceptional opportunities Photography offers you and how to avail yourself of these advantages.

MOTION PICTURE—COMMERCIAL — PORTRAITURE

Three months' course. Practical instruction. Modern equipment. Day or evening classes. Easy terms. Cameras and Materials furnished free. The School of Recognized Superiority. Call or write for Catalog No. 69.

N. Y. INSTITUTE OF PHOTOGRAPHY
141 W. 36th St., New York, or 505 State St., Brooklyn

PEERLESS

Japanese Transparent Water Colors

The original colors put up on leaves or films.
The standard photographic colors everywhere.
Sold by dealers in photo materials and art supplies in every city in the U. S. and in most foreign countries.

JAPANESE WATER COLOR CO.
Rochester, N. Y., U. S. A.

IMPORTED CAMERAS Montreal Camera Exchange
cameras in America. Save 18 per cent. Exchange and special prices.
R. F. SMITH Box 2705 Montreal, Canada

S P L

Send for booklet explaining "control at full opening" and giving names of some of the prominent users of **STRUSS PICTORIAL LENS**.

Fred'k W. Keasbey Box 303 Morristown, N. J.

Big Ben Binder for Camera Craft

Holding twelve issues—only \$1.00
CAMERA CRAFT San Francisco, Calif.

Get rid of what you do not need for something you do! **LENSES** I buy, sell and exchange lenses and all other good

Photographic Apparatus

Let me quote you prices, or on Anything else wanted—backgrounds, etc., before buying elsewhere, it will pay you. Real Bargains constantly on hand and in sight.

Moving Picture Machines Sold on Easy Payments
Send for catalogue and particulars

Ralph J. Golsen, Argyle Bldg., 1128 Argyle St., Chicago

Learn Photography Moving Pictures

Portraits or Commercial

E. BRUNEL

College of Photography

1269 Broadway New York City
134 So. Clark St., Chicago, Ill.

Fascinating, profitable work, taught by successful photographers operating studios in largest cities. Earn \$35 to \$100 weekly. Day and night classes. 3 months' course. Easy payments. Address Dept. 11.



Feather River Canyon Views

On Line Western Pacific R. R.
3—5x7 Prints Fifty Cents

H. S. LAWTON San Francisco, Calif.
693 Mission Street

Book No. 40

AUTOMATIC PLATE DEVELOPMENT

Of 5 Plates With
NO. 2 HARVEY EXPOSURE METER, \$2.00

For All Cameras
Book No. 40 separate, 35c Postpaid

At Your Dealer, or
GEO. HARVEY

105 S. Dearborn Street Chicago, Ill.

MOTION PICTURE DEVELOPING and Printing.
Dependable service for the M.P. Camera owner. We are in the market for good M.P. Negatives of Scenic, Travel, Educational, Etc. Photo Finishing Company, 3159 Indiana Avenue, Chicago.

\$10.00 A DAY FOR AMATEUR PHOTOGRAPHERS
Ten cents brings the plan which has been successfully operated. **J. W. Bilodeau**, Lyndonville, Vt., Dept. 21

INSPIRATION Photos for sale. Life studies from living models of rare picturesque beauty in classic or statuesque poses, draped or undraped, especially adapted to artists' use. Gems of ideal womanhood, 5x7 size, 50 cts. each, \$5.00 a dozen, \$30.00 a hundred, all different. **Johnson's Studio**, Hillsboro, Ore.

FILM ENVELOPES

For Amateur Finishing. Write for Samples.
WESLEY ANDREWS, Printer, Baker, Ore.

Krauss-Zeiss Tessars

F:3.5 and F:4.5

Sole U. S. Agent

A. MADELINE, 1416 Broadway, New York
Graflexes with Krauss Tessars Stereo Cameras

Please Mention Camera Craft when Corresponding with Advertisers.

MADE IN
U. S. A.

"Snow White"

KNOWN
ABROAD

THE STANDARD WHITE INK

Equally Successful as White Water Color
or as an Air Brush Spray

WILL NOT
POWDER,
FLAKE NOR
RUB OFF

Always Good
Add Water
Only. Flows
Readily from Pen



HIGHEST
ENDORSE-
MENTS
RECEIVED

For Photo
Book Pages
Tabulating
Negatives, Etc.

1/2 oz. size, 25c

New Arts Bldg. J. W. JOHNSTON, Rochester, N. Y.
(Dept. C. C.)

ATTENTION AMATEURS: Mount your prints by "Parker's Method." No muss; no fuss; no stickers. Increases capacity and improves appearance of your album. Lots of fun, lasts a lifetime. Directions, 30 cents stamps. C. E. Parker, P. O. Box 940, Pittsburgh, Pa.

PLATINOTYPE

REPRESENTS THE **BEST** IN PHOTOGRAPHY

The prints add prestige and **HIGHER PRICES** to the man who makes them. Send for latest lists. Platinotypes, Palladiotype and Satissta Papers

WILLIS & CLEMENTS

Philadelphia, Pa.

INDIAN PHOTOGRAPHS

FOR SALE—Beautiful and intriguing 8x10 bromide photographs of Navajo, Zuni, San Domingo and Apache Indians, squaws and papooses, sent prepaid, securely packed, upon receipt of 35 cents each.

Robert M. Riculfi, Room 20, Ministers' Bldg., Presbyterian Sanatorium, Albuquerque, New Mexico.

References, First National Bank, or Superintendent of Sanatorium, Albuquerque, N. M.

Send for some and help an ex-service tubercular get well.

STOP!!

STOP!!

startling values, endless variety, in used Cameras, Lenses and photographic supplies. Our stock moves too rapidly to permit of a printed list. Tell us your wants in the ways of a bargain and see what we can offer. No obligations to buy.

WRITE TODAY

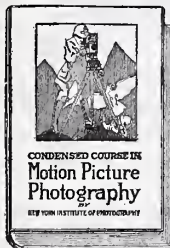
New York Camera Exchange

109-11 Fulton St.
New York, N. Y.

MOTION-PICTURE PHOTOGRAPHY

A Complete Course

A practicable, usable, standard treatise for both the professional cinematographer and those without experience. About 500 pages—400 pages of text and 100 pages of illustrations—by New York Institute of Photography.



Edited by Lieut. Carl L. Gregory, F.R.P.S., Chief Instructor in Cinematography for the Government Signal Corps School of Photography at Columbia University, with special chapters by Charles W. Hoffman, celebrated Feature Photographer, and by Research Specialists of the Eastman Kodak Co.

PRICE \$6.00

Money refunded if not satisfied after 5-day examination.

NEW YORK INSTITUTE OF PHOTOGRAPHY
Dept. 16, 145 W. 36th St., N. Y. Also at Dealers

CRAIG ENLARGERS

Can be used in conjunction with any camera having a removable back. Reasonably priced.

Write for descriptive folder

H. W. CRAIG, 5117 Kimbark Ave., Chicago, Ill.

RETOUCHERS FOR THE TRADE

Quick, consistent service since 1905

Experienced Retouchers

JUST SHOOT 'EM RIGHT ALONG

Don't be timid

LET'S GET ACQUAINTED

National Retouching Service

4654 Cottage Grove Ave.

Chicago, Ill.

RETOUCHING A PROFITABLE PROFESSION

The work is interesting and enjoyable

Good retouchers are always in demand

GET EXPERT INDIVIDUAL INSTRUCTION

DuBois School of Practical Retouching

821 Market St. (Room 363)

San Francisco, Cal.

SCHEIBE'S DIFFUSING SCREEN

For Soft Focus Effects

Can be used on any sharp cutting lens. For speed and quality it is superior to any Soft Focus lens on the market. Send for Sample Photo

GEO. H. SCHEIBE, Photo Filter Specialist
701 N. Belmont Ave. LOS ANGELES, CAL.

For Particular People Highest Class

Developing-Printing-Enlarging

Price List on Application.

Harry T. Misumi "Knows How" 22 Years Experience

973 MARKET ST. S.F. CAL. (Entire 6th Floor)

Please Mention Camera Craft when Corresponding with Advertisers.

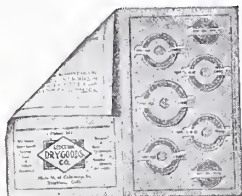
POST CARDS FROM YOUR OWN NEGATIVES OR FILMS

50 PRINTS FROM ONE NEGATIVE MINIMUM
QUICK SERVICE BEST WORKMANSHIP

J. K. PIGGOTT
PHOTO-PRINTER

86 THIRD STREET
SAN FRANCISCO, CALIF.

PHONE SUTTER,
6143



Spies Coin Cards Pay Big Dividends on Your Postage

Here is something you have felt the need of for some time. Just the thing to collect in the cash for Developing, Printing, Camera Supplies, etc. The nature of your business necessarily involves many small accounts that will be readily collected by using these cards. Remarkable results obtained by Photo Supply Houses, Publishers and Direct by Mail Dealers now using them. Send for Samples.

JOHN N. SPIES, Mfg., WATERTOWN, NEW YORK

Send Us

CLAUS SPRECKELS BLDG.
SAN RANCISCO, CALIF.

the names of your friends interested in
photography. We want to send them a
sample copy of

Camera Craft

GIRL PHOTOS

Bathing and chorus girl photos, originals, $3\frac{1}{4} \times 5\frac{1}{2}$, 12 different, \$1.00. No samples.

C. D. OSTROM

538 Freeman Ave. Kansas City, Kansas

ARTISTIC

LANTERN SLIDES

A Large Stock of Slides of Various
Subjects Always on Hand

Price List Sent on Application

A. E. DAVIES

1327 Grove St. Berkeley, Calif.

Any photographic dealers in
your city not carrying
Camera Craft?

Send us their names and we will
thank you

Camera Craft

San Francisco, Cal.

The Camera Doctor Announces Reductions

14½-inch Verito Lens, f-4 in Studio Shutter	SPECIAL	\$60.00
5x8, f-4.5, Bausch & Lomb Tessar in barrel	SPECIAL	55.00
8½-inch Cooke, f-6.5 in Volute Shutter	SPECIAL	40.00
8¾-inch Carl Zeiss Protar in Compound Shutter	SPECIAL	100.00
4x5 Telescopic Graflex, revolving back	SPECIAL	85.00
5x7 Korona View Camera	SPECIAL	25.00
3A Graflex, fitted with 5x7 2B B. & L. Tessar	SPECIAL	80.00
2¼x3¼ Premo Camera No. 12, with B. & L. 6.3 Tessar and Acme Shutter	SPECIAL	55.00
4A Kodak, complete, like new	SPECIAL	17.50

AGENTS FOR G. GENNERT'S FULL LINE OF CAMERAS AND PHOTOGRAPHIC SUPPLIES

The Exclusive Camera Shop

Mail Orders Promptly Attended to
REPAIRING OUR SPECIALTY

G. E. BIDDELL & CO., Inc.

Camera Doctors

Our Developing, Printing and Enlarging Give Best Results.

53 Fourth St., near Market, San Francisco

Please Mention Camera Craft when Corresponding with Advertisers.

PEERLESS

PHOTO OIL COLORS

(Colores de aceite para fotografias)

The Latest Product of the Peerless Laboratories

Brilliant—Transparent—Permanent

A revelation for those who wish oil colors for photographic use. Professional set, 15 tubes, \$2.50

JAPANESE WATER COLOR CO.

Rochester, N. Y., U. S. A.

FIGURE STUDY NEGATIVES AND PRINTS

Negatives	5 x7	\$1.50 each	\$15.00 dozen
Prints	3 1/2 x 5 1/2	.25 each	2.00 dozen
Prints	6 1/2 x 8 1/2	.50 each	3.00 dozen

HARRY A. BRODINE, 777 Forest Ave, Bronx, N. Y.

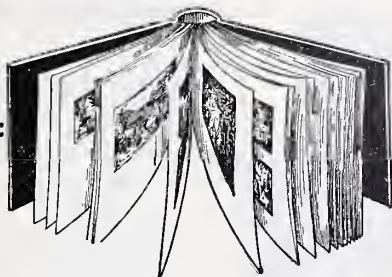
Ask Us About It

You may want something in the photographic line that is not advertised in our pages. Perhaps it is something you saw advertised some time ago or something you have an idea is obtainable. Write and ask us about it. Don't send stamps, the service is free and we want you to use it. Address:

Dept. B. **CAMERA CRAFT**

Claus Spreckels Bldg.

San Francisco



Relieve the Monotony

of those cold black prints by using

TRADE MARK **'TABLOID'** BRAND

Blue and Green Toners

Suit all development papers.
Easy to use: simply tone and wash.

Of all Photographic Dealers

'TABLOID' means—Issued by



BURROUGHS WELLCOME & CO., LONDON

NEW YORK: 18/20, EAST FORTY-FIRST STREET

MONTREAL: 101-110, CORISTINE BUILDING

Pho. 1088 Ex.

All Rights Reserved

Let Us Take Care of Your Subscription for You



One remittance will then be all that is necessary. Ask us for quotation on any magazine published ▲ ▲ ▲ ▲ ▲

CAMERA CRAFT PUBLISHING COMPANY

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CAL.

ILEX

SHUTTERS and LENSES

—Write for Catalogue—

WILLIAM O. HAMMER

PHOTOGRAPHIC, OPTICAL AND SCIENTIFIC INSTRUMENTS

Expert Repairing, Lens Fitting and Recementing

Phone Kea. v 708

SAN FRANCISCO, CAL.

35 Montgomery Street

Please Mention Camera Craft when Corresponding with Advertisers.



2 1/4 x 3 1/4

Victory REFLEX

(T. P. England)
with
World Famous
COOKE F4.5
LENS
\$79

Features:

Self Capping Shutter
Automatic Setting
Revolving Back
Self Erecting Hood
Rising Front
Cooke Lens 5 in. Focus

Circular on Request

Charles G. Willoughby, Inc.
110 West 32d Street, New York

CRISP DEFINITION

AT THE REMARKABLE
SPEED F/3
ALDIS LENS

*Send for
Price List*

J.L. LEWIS SOLE AGT.
522 SIXTH AVE. N.Y.

ALLURING SOFTNESS



AIR BRUSH
FOR
Art Work

We're doing business at the old stand making and selling more than ever of the **BEST ART TOOL** in the line for good work. Send for circulars to-day and learn of its many uses.

AIR BRUSH MFG. COMPANY

72 Nassau Street

Rockford, Ill., U. S. A.

DON'T MISS THE PHOTOGRAPHERS' CONVENTION *at*

VANCOUVER, B. C.

August 2nd to 5th, 1921

Photographers'
Association of the
Pacific Northwest

President: THOS. GAGNON, Tacoma, Wash.
Vice-Pres.: W. M. BALL, Corvallis, Ore.
Sec.-Treas.: A. T. BRIDGMAN, Vancouver, B. C.

"A Convention of Professional Photographers for the purpose of producing better work, better service, and a greater demand for PROFESSIONAL PHOTOGRAPHS."

Please Mention Camera Craft when Corresponding with Advertisers.

Simply Irresistible

THAT is what they say who have been fortunate enough to see the new Fall Styles in Collins Ultrafine Mountings. You will too, when you see them.

Collins Mountings have never been surpassed in originality of design and beauty of effect, and the new Fall Styles eclipse all previous creations of the Collins organization.

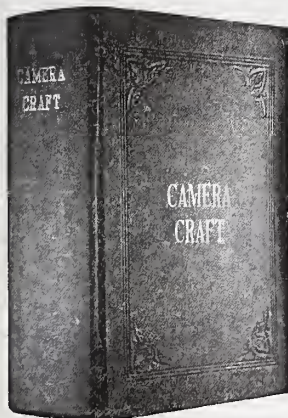
KEEP THIS IN MIND

See the new features in Ultrafine Quality Mountings before completing your purchases of Fall Mountings. There are surprises in store for you which our salesman will be glad to exhibit when he calls for your early Fall business. When you see them you'll agree—the Fall Styles of Collins Ultrafine Mountings are simply irresistible.

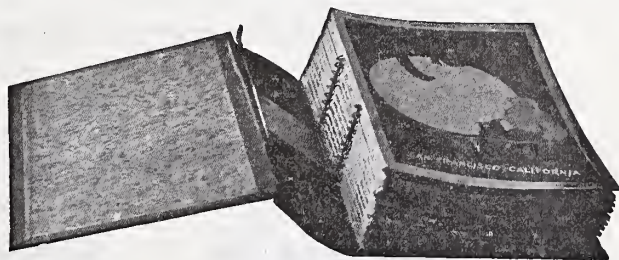
ZELLERBACH PAPER COMPANY

San Francisco Oakland Fresno Sacramento Los Angeles San Diego
Portland Seattle Tacoma Spokane Salt Lake City

BIG BEN BINDER for CAMERA CRAFT



For a long time we have been looking for a really practical binder, one that we could recommend to our readers. We believe we have found it in the BIG BEN shown below, Put on



the market only a few months ago it has already been adopted by such leading publications as Cosmopolitan, Ladies' Home Journal, Good Housekeeping and hundreds of others. This binder is finished in book cloth with Camera Craft stamped in gold on front cover and back. It is equipped with a patented device for binding twelve copies of Camera Craft together in a single volume, having the appearance of a regular bound book. It is strong in construction and so simple in operation that the filing or extraction of one or more magazines requires but a few seconds. No punching of holes is necessary—just a slit between the pages with a pen knife, the insertion of a metal clip, and the magazine is ready to be dropped into place over the binding rods, which are swung back and, with a slight turn of the wrist, securely locked to the solid wood back. The back is not flexible and there is no chance for the magazine to work loose or uneven. We supply them at
\$1.00 Each, Postpaid.

CAMERA CRAFT :: :: CLAUD SPRECKELS BUILDING
SAN FRANCISCO, CAL.

Please Mention Camera Craft when Corresponding with Advertisers.

FOUNTAIN PEN SERVICE

*Repairs and Adjustments
on All Makes of
Fountain Pens*

Dealers serve yourself by serving your customers.
Have your work done by repairmen who understand their work and your needs. We make prompt and correct repairs on all kinds of fountain pens, including mounted goods.

A. E. DAVIES

519 Wells Fargo Bldg.

San Francisco, Calif.

Western Service Station
for Parker Pens — Parker Pencils

MARSH & CO.



712 MARKET ST. SAN FRANCISCO

Milner LIGHT GAUGE

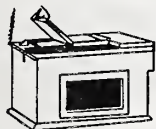


No Guessing!
Exposure told instantly
Price \$1.50 Postpaid

PRINTING

is so much
more interesting
when you obtain
GOOD RESULTS

EASTMAN PRINTER



Complete\$10.00



Flash Light Photos

of the
Home Gatherings
are desirable and ex-
tremely fascinating
SHEET HOLDER

\$1.25

Postpaid



SELF TIMER

By using one of these you can
be in every picture
\$1.25 Postpaid

CANDLE LAMPS

especially handy for camping
outfits



Metal 20c Folding 35c



NEGATIVE ALBUMS

Are the logical
place in which to
Store Your
FILMS
All Sizes
75 cents to \$1.50

TRIM Your PRINTS

and their beauty is
immediately
enhanced
65 cents to \$25.00



PLATE DRYING RACKS

A very convenient accessory to
any dark room

From 30c to \$2.50



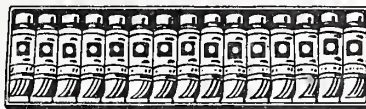
Portrait Attachments

to fit all size Kodaks
See Kodak catalog for
description

75c each Postpaid

COLORED PHOTOS

Are Becoming
MORE POPULAR EVERY DAY
and is done so Easily with
ROEHRIG'S OIL PHOTO COLORS



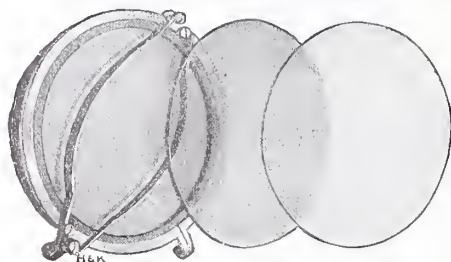
Complete Set, \$2.50, Postpaid

MARSH & CO.

712
MARKET
STREET
SAN FRANCISCO

MAIL ORDERS

THE BARRÉ COLOR FILTER



This is the newest, as well as the most convenient and practical color filter.

It comprises three color screens. Made of optically plane glass, light, medium and dark, increasing the exposure three, six and ten times respectively when used with orthochromatic, isochromatic or other color sensitive plates.

When not in use, all the screens may be carried in the holder, which consists of a threaded metal ring with collar and an ingenious spring catch, by means of which the screen is instantly fastened to the lens, and as readily removed.

Order Through
Your Dealer

PRICES

No. 0 for lenses up to $\frac{3}{4}$ -inch diam.....						\$2.00
" 1	"	"	"	"	$1\frac{1}{8}$	2.25
" 2	"	"	"	"	$1\frac{5}{8}$	2.75
" 3	"	"	"	"	$2\frac{3}{16}$	3.25
" 4	"	"	"	"	3	4.75

Sent Postpaid
Upon Receipt
of Price

Note:—The No. 4 size will not be ready for delivery until September first.

HIRSCH & KAYE

PHOTO SUPPLIES

218 POST STREET
SAN FRANCISCO



"THE OLD OAK"
By OTTO C. SCHULTE

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXVIII

JUNE, 1921

No. 6

Soft Focus Lenses

By H. D'Arcy Power, M. D.



With Illustrations by the Author

The evolution of the popularity of the soft focus lens is not only an example of the improvement in artistic taste, but a return to the normal way of seeing things. When the lens picture first greeted the public it came as a wonder. The photograph recalled everything, the child's dimples and grandmother's wrinkles, the stamens in the flower and the spider's web, nay with the hand glass you might perchance detect the beetle in the bud. Here were pictures such as no artist had ever made, or ever could. No wonder we had an enthusiastic world. True as a photograph became an axiom, and yet artists did not like photographs, a few, such as Hill, tried the camera for a while, but soon went back to the pencil and paint brush. All kinds of reasons were given, jealousy said some; false values, a lack of selection, confusing distribution of lights, and other faults replied the artists. Things the laity did not understand.

Presently came the hand camera and every body made photographs, made them with the ambition of getting them sharp and clear, so that they could see everything that they knew was in sight of the camera. With F-64 and ferrotyped solio they often did. The greater their success, the less use the artists had for the process. Why? Because the lens picture is one that no eye has ever seen.

A good lens sees everything at once and equally well, the human eye at a given time sees only the object to which its attention is directed, all else is dimly apprehended with increasing blurring as the center of interest is

CAMERA CRAFT

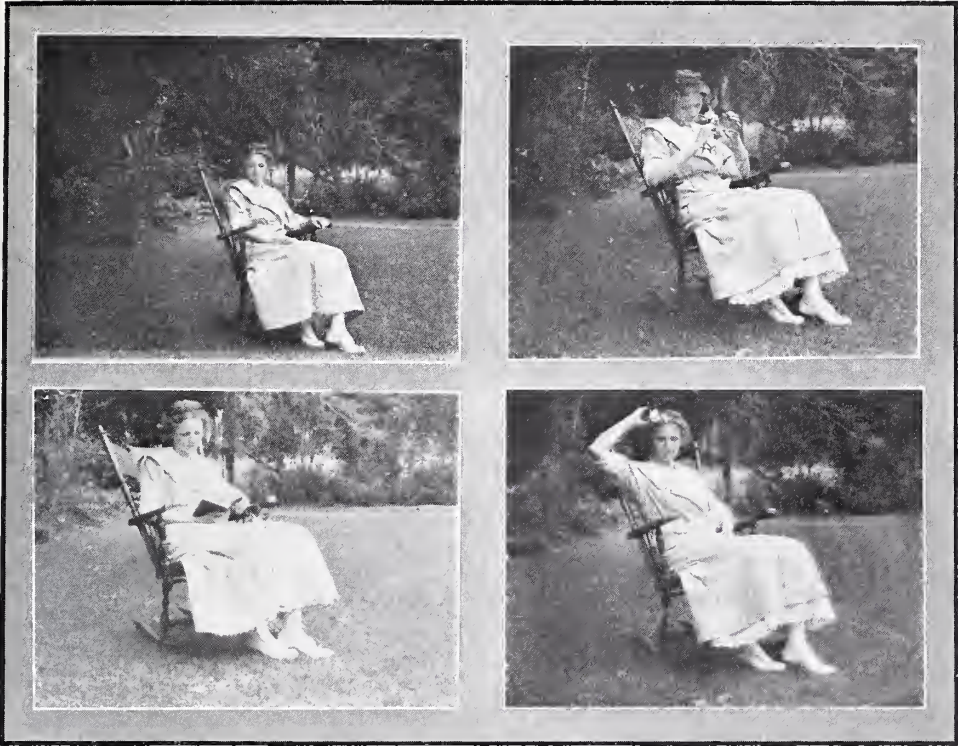
left. The eye may change its position and retain a memory picture of what it just observed, but the object of interest will always dominate the rest because it is most looked at and best remembered. This fact a good artist



MADE WITH PINHOLE NO. 2, EXPOSURE, ONE MINUTE

unconsciously embodies in his picture, but the lens has no preferences, it gives all, and owing to the small size of photographs the eye cannot exclude the uninteresting, from the field of vision. The artist whose training leads him to seek for the true appearance of things, naturally rejects an image he never sees in nature. With the every day man it is different, his ideas of what things look like is made up of what he knows they are. He is sure that a tree consists of a trunk, branches and leaves, but he does not reflect that he can not see a tree and every one of the leaves at the same time. If he obtains a photograph that does this very thing (because the small size of both images can come within the focus of the eye) he accepts it, inasmuch as it fulfills his idea of truth. The every day man is interested in facts, the more facts he finds the greater his appreciation. So he admires

SOFT FOCUS LENSES



EXAMPLES OF NO. 3 PINHOLE PORTRAITS

the pictures of Claude Lorrain stuffed with figures and architecture, the photograph, that he can examine with a hand glass and find something otherwise invisible.

Many painters in the early days of art were obsessed with the same idea. That is long past; more and more the aim is to give what is actually seen, leaving it to the beholder to make his own interpretation of the appearance. It took many centuries for the professional artist to reach this point, now the mass of the public are following the same road, they reach out for pictures that shall give pleasure rather than information. In the case of photography there are many ways to this end, one of which is to avoid an unnatural definition. The ideal desired is to give a picture as the eye sees it. In the nature of things it is an impossibility; consider the eye viewing a landscape: It is apprehended through a lens of short focus and very limited field. With great rapidity its different objects and masses are focused, examined in turn, attention is evoked by some, others never enter into consciousness, presently a visual concept is formed in which the objects that have stimulated the attention most are dominant. Usually one particular mass or color makes the greatest impression and holds the optical focus, around it all other things fade away with only a subconscious memory of their existence. As different observers will probably

CAMERA CRAFT

have their attention fixed by different objects in the same field of view, the mental picture will be correspondingly different. An artist using paint will seek to reproduce his impression with such success as his skill permits and within limits he may partially succeed. He does not paint what his eye has not noticed, and he can hardly help giving extra prominence to the things that have mostly impressed him. By enhanced color contrast, chiaroscuro, or even departure from strict perspective drawing, this is easily attained. How far can the user of the lens follow in his footsteps?

In this article we will confine our attention to one means only, namely modification of the image in order to secure concentration of attention on the subject of the picture. This means, subordination of the unimportant. Where the conditions permit of it, selection of view point will attain much, but more can be effected by the character of the photographic image. The problem is not easy. It is to see the main object clearly even sharply, and the rest according to their lesser values. The definition of the main object is easily attained by focusing on it, but most pictures contain many planes and to get any resemblance to natural appearances they must be shown with reasonable definition, that means stopping down, which in its turn means the excessive sharpness of all objects; the curse of most photographs.

There are three ways by which an approximation to a solution may be obtained. They are, first, coarse focusing; second, the use of a pinhole; third, using a lens that is uncorrected, that is, possesses naturally defective definition.

The first method was much in use some ten or more years ago. To be effective it requires too much blurring of the objects of secondary interest. With a few subjects it gives pleasant results. In a general way it gives not only softening of texture but blurring of outlines, and this is fatal.

The use of a pinhole to form the image is another matter. The definition of a pinhole picture is determined by the size of the hole employed. A number 12 needle hole gives a circle of confusion of $1/100$ of an inch, which is what is demanded of a lens, but the exposure time is prohibitive; a number ten needle hole $1/50$ of an inch, gives a definition answering all requirements of landscape and portraiture. The picture made in this manner has unique character, all objects are in focus from a few inches to infinity. They are equally in focus. The drawing in absolute perspective. The angle of view is determined by the size of the plate. The definition (with No. 10 p. h. No. 3 Power-Watkins System) is clear but soft, much as the eye sees it. These are great advantages and those who have learned to use a pinhole rarely discard it; but there are grave disadvantages. The exposure time is about sixty times that of a lens F-8 and the equality of the definition through all planes forbids all selective focusing. In landscape this is usually an advantage, but in many cases it is the loss of a means of accent.

The third method, the use of an uncorrected lens, is due Major Puyo of Paris, who some fifteen years ago advocated the employment of spectacle lenses, and induced a French firm to make them of dimensions not used

SOFT FOCUS LENSES



MADE WITH KALOSAT, SERIES 1, F-4.5

by the oculist. A spectacle lens is not corrected for spherical aberration, astigmatism, coma, or chromatic aberration. The meaning of which is that besides the main image various secondary images are formed that overlap the former and according to the amount, soften or blur the image formed on the negative. Now the amount and position of this blurring can be controlled in various ways and can even be relegated to the center or periphery of the visual field, or, by the use of very small stops, practically eliminated. The success of the French lenses, led the well known lens makers to introduce lenses of this type, until the soft focus lens is more and more displacing the anastigmat for art, as against scientific purposes.

The last lens of this type to enter the field is the Kalosa, the outcome of a communication contributed to Camera Craft by the writer of this article, in November, 1919. In the search for a lens of great rapidity to take instantaneous photographs in room lighting, the writer employed a quartz spectacle lens. The reasons for the choice being that as there are only two surfaces as against eight or sixteen in anastigmats, the loss of light by reflection is reduced to a minimum, and as quartz or oxide of silicon passes the highly actinic ultra violet rays, their action could be counted on to help produce the image, lastly, as the refractive index of the silica is only one-tenth that of lens glass a focal correction is not necessary.

The experiments were made with a one and one-fourth-inch meniscus lens of five-inch focus concave surface towards the field, working aperture

CAMERA CRAFT

being thus about F-4. The results were most satisfactory and portraits taken eight feet from the window of a living room at one-sixteenth of a second were excellent in definition and permitted of enlargement from $3\frac{1}{4} \times 4\frac{1}{4}$ to 14×17 without loss of quality.

At that time, some seven years ago, a lens competition exhibit was being hung on the walls of the California Camera Club, and the writer hung these enlargements with the caption, "It's all in the lens, price 50 cents," without suffering from the comparison with the product of well known lens makers. Shortly after, trying it out on landscape the lens was lost, and the attempt to replace it by another pebble lens, that is quartz lens, resulted in failures owing to imperfections in the natural rock crystal from which they are made.

This led to the discontinuance of pebble lenses, and nothing further was done until the writer learned rock crystal synthetically made, and therefore flawless, was used for lenses in the transmission of light for medical purposes. A request to make a five-inch lens from the makers was responded to, and the results obtained by its use were given to the photographic world in the article in Camera Craft two years ago. The result was, an immediate interest both in the U. S. and abroad that finally caused the manufacture of the Kalosat lens. We are receiving many inquiries in respect to this lens and a few words may cover the same.

It is made in two series, one working at F-4, the other at F-6.5 but the rapidity of the lens is such, that allowance must be made for it making exposures by meter. Experiments with the F-6.5 lens in landscape work yield good marginal definition and an unexpected flatness of field. Single lenses of the meniscus type show inward or outward distortion of straight lines near the margin of the picture, but this is practically eliminated by the forward position of the diaphragm, and buildings show no distortion.

The writer devised this lens for rapid action which it has, but the makers especially market it as a soft focus lens, and it is being judged largely from this standpoint, and this calls for some explanation and warning. The softness in such lenses is due to the overlapping of the central image by marginal images of slight intensity, if the lens is stopped down too much the latter are cut out and the definition becomes proportionately sharp, furthermore, with such lenses the focusing must be done after the diaphragm has been selected, it varies with the aperture. Failure to observe these rules, will result in failures for which the lens is in no way to blame. It has been stated that in the case of crystal lenses the focus of the actinic and visual rays so nearly coincide that no correction by drawing back the lens is needed, but they do not completely come together, and this adds to the softness of the image. If the user rack the lens back 1-400th of its focal length he will lose this diffusion, therefore, when using the lens for softness, be careful that the lens is in front rather than behind its visual focus. Lastly, the distribution of the area of softness in this type of lens,

SOFT FOCUS LENSES



MADE WITH KALOSAT SERIES 2, F-6.3.

depends on the relation of the curvature of the lens to the plate and field. If the convex side of the lens is towards the plate the diffusion is evenly distributed and no area is critically sharp. This is usually the right position for general use. If the lens be reversed, we obtain sharp definition in the center and rapid shading off into blurring at the edge. Such an arrangement may be an advantage in portraiture.

These warnings are necessary, as only recently we received a letter from a gentleman, presumably of experience in photography, stating that "he did not think much of the Kalosat as a soft focus lens in comparison with the pinhole," oblivious of the complete difference, both in nature and field of usefulness of these instruments. My own experience with crystal lenses enables me to say, that they will give excellent results in all fields, except the purely technical and in copying. That pictures taken with them are much closer to what the eye observes, than those of the older type. That the Kalosat is the most rapid lens made, par excellence a portrait lens, but reliable in landscape work.

The accompanying illustrations are offered in support of these statements.

Foreshortening is one of the most difficult studies in the art of design, and constitutes the excellence of the master. Any object is foreshortened when its ends are presented to the eye instead of the side or full length.—Platt.



Back to Normal

By Jas. H. Smith



This is a hackneyed phrase which is somewhat overworked in these latter days of changing conditions, of unrest, and to a certain extent of labor and business depression, throughout the country.

My observation, however, does not indicate that the phrase has been used in connection with the tendency, which I regret to observe is becoming quite prevalent, of ignoring the old system of lighting the subjects for portrait work in the studio from one broad general source, and which will reproduce the features of patrons as they are almost invariably seen in their homes, and in the varied walks of life, and adopting instead, more striking and unusual effects.

It is to the great credit of our best portrait photographers that they have not been swept off their feet by the fad now so prevalent for "something different" and for "fancy lightings," etc. I have now in mind an ex-president of the P. A. of A., as well as others who refuse to inflict upon their patrons, those inferior abominations of lighting, such as are never seen in real life, but which others offer as "something new," "the latest style in lighting," and which some patrons will accept rather than have it inferred that their photos are not up-to-date, even though the likeness is inferior to those of the plain lighting.

In advertising his wares, a Kansas City dealer, before the late convention, mentions "everything to satisfy the craze for fancy lighting." Whether they realize it or not, they were right in calling it a "craze," and such a craze must soon pass because of a lack of merit.

It is a good thing to introduce a change in your business if it has merit, or is an improvement upon the old. You would make that the only condition of changing a piece of apparatus, then why not apply the same test in lighting your subjects? Why should any photographer use a "spotlight" for producing some "new" effect, when by doing so he produces an effect which the friends of the subject never saw, and which therefore fails utterly to produce the best possible representation of that subject, the result being neither artistic nor beautiful.

I have seen a vast number of so-called "fancy lightings" and "double lightings" but it has never been my privilege to see even one, which in my judgment, would not have been greatly improved by using one source of light (properly blended, of course) and dispensing entirely with every double source of light.

To me the great majority of fancy lightings now produced are lighting abominations, and I believe that the great majority of our best photogra-

THE S. Q. DEVELOPER

phers are of the same mind, and it is surprising that so large a number should be willing to greatly lower their standards for quality of work in order to offer something "different," and which in the very nature of the case is destined to be merely a passing fad. Hence in my judgment those who first get "back to normal" and back to a sensible basis in their lighting systems, will thereby greatly strengthen their foundations for future prosperity.



The S. Q. Developer

Some readers noting this caption will probably take it as a printer's error and conclude that M. Q. was intended, but please read on.

Probably the most interesting item for the present, is the action of phenosafranine on the photographic plate, its desensitizing effect is the point that has attracted photographic experimenters and as we learn more about it, its use is likely to become quite extended.

We published a valuable contribution by Prof. Albert Johannsen of the University of Chicago under the caption, "Desensitizing Plates and Films," in our April number which probably many of our readers are familiar with, but we wish to draw attention to a later report, namely the action of phenosafranine on hydroquinone developer.

According to Dr. Luppó-Cramer a very small quantity of the safranine added to hydroquinone will convert a hard-working, short-factor developer into one of long-factor, such as metol. With this change, it is claimed the developer takes on similar properties to the well known M. Q., although metol does not enter into its composition. Dr. Luppó-Cramer has given the following formula:

A.

Sodium sulphite cryst	2 ozs.
Hydroquinone	105 grs.
Potass. bromide	10 grs.
Water	20 ozs.

B.

Potass. carbonate	1 oz.
Phenosafranine 1:2000 solution	4 ozs.
Water to make	20 ozs.

Mix A and B in equal parts at time of using.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

VI. OREGON GRAPE (*Berberis Aquifolium*)

This is the State Flower of Oregon; an evergreen shrub that grows from one to three feet in height, thriving seemingly on all kinds of soil and may be found all over the mountains and valleys of the Pacific Northwest.

The flowers appear in May, growing in clusters. They are of a bright yellow color and very fragrant. The clustered berries or grapes, are a purple-black in color when ripe, and sour to the taste. These berries are used in cookery and are appreciated in pies.

The plant has medicinal qualities also, and is known in the fluid extract and active principle as Berberine. Its roots produce a yellow dye of a very pleasing shade.

In cultivation, Oregon Grape makes a showy shrub and in the fall of the year, its upper leaves take on beautiful shades of a coppery red. The leaves themselves are prized for decorative purposes, being much like the holly in shape, and on that account, is frequently used to replace holly in the making of wreaths for Christmas decorations. It would have been difficult for the people of Oregon to have chosen as their emblem a flowering shrub more ornamental and useful than the wild Oregon Grape.—

A. F. Turner.





Pictures, Pastime and Profit

By Frank Belmont Odell



With Illustrations by the Author

Did you ever feel that you were not getting anywhere in the game of photography? Sooner or later you will reach that stage in your artistic enfoldment when good sense demands some compensation for your experience and skill. If you've got that far along the pyro path, there is a message for you in this story of my experience in lassoing galloping dollars with a little 3-A.

For a long time I was reluctant to commercialize my favorite pastime, feeling a queer reverence for the craft of amateur photography. I was sublimely contented to add my annual mite to the Eastman millions and felt amply repaid in the fun I was having. A clean hobby, sanely indulged, has its own compensation in the subtle and lasting pleasure of its pursuit; but, I came to a point where I liked to have the courage to check up expenditures and look facts in the eye. I wanted to be compensated in coin that I could exchange for meat and milk and mittens. I am glad that I do not know how many miles of live emulsion I have wasted, but I do know that up in the attic is a fairly large box overflowing with the ghosts of artistic aspirations of my early days.

So, instead of "just pictures" I learned to shoot at dollars and no one—not even members of my own family need know about those crisp checks the postman pokes through the mail slot in our front door. I deliberately cultivated a nose for news and now an evening's revel in the ruby glow is sure to yield a few cashable checks with my name on the payee's line.

Abstract generalizing is not particularly interesting and I very much desire that this story shall be helpful to other craftsmen who, like myself, want to make their photographic sport self-sustaining. Here's how!

A breeder of registered cattle just on the outskirts of town turned me loose in his Holstein herd and among others I secured a fairly good picture of the \$50,000 prize bull which, with three hundred words of text on "The Value of a Camera on the Farm" brought about four dollars from Farm Journal, Philadelphia, Pa. At another time four prints showing how checks are raised, rang the cash register bell in the same office to the tune of twelve dollars. To help make these prints salable I first studied the methods of professional check charmers then wrote two valid checks on a local bank and photographed them pinned up on a board. I then raised the checks (with such ease and skill that if business doesn't soon improve, I'm

CAMERA CRAFT



Seed-Pod of Milk Weed

Seeds of the Soft Maple

Showing Seeds of Burdock
Clinging to Clothing

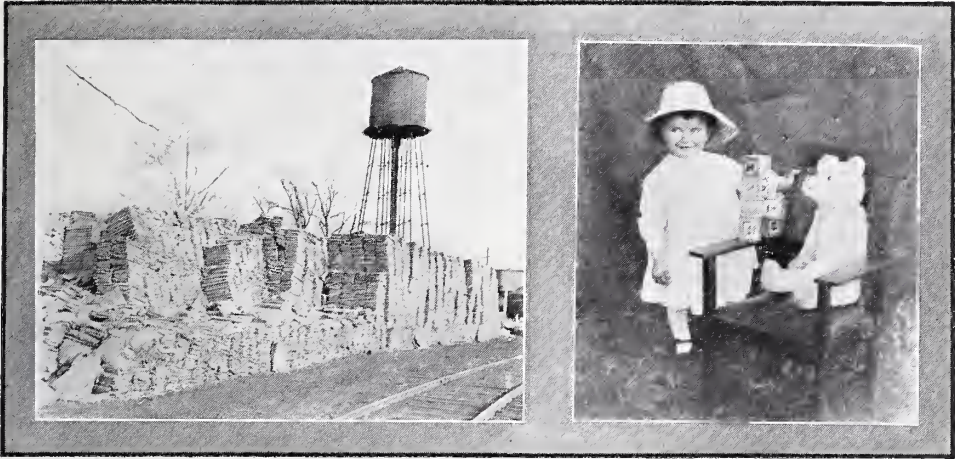
HOW SEEDS TRAVEL

going into the check raising game myself) and rephotographed them. About six hundred words written "around" these before-and-after pictures, brought a sea green check in four days. The D. C. Cook Company, Elgin, Ill., sent payment promptly for four prints of bursting seed pods of thistle, milkweed, burdock and soft maple. These pictures illustrated a paragraph on "How Seeds Travel", published in Boys World, one of a long string of Sunday school papers for wee tots, children and juveniles printed by the D. C. Cook Company. They are eager buyers of pictures likely to interest young readers from the prattle age up through the teens. Pets, sports, featuring children, rudamental science and nature subjects.

Six paper mills operate in and near my city affording opportunity for pictures of pulp wood and the interesting processes of converting it into paper. The Queen's Garden, Philadelphia, Pa., bought several of these. This is also a Sunday school paper published for young people. Two hundred words of descriptive text carried three prints into the accepted drawer and brought me a check for four dollars. Over in Lewis county last summer a veteran cheese maker made a cheese weighing six tons—the second largest cheese ever made. The Lieutenant Governor came up from the capitol to dedicate it or lay the corner stone or whatever it is that Lieutenant Governors do to six-ton cheeses. We motored over Saturday afternoon to see the fun, the cheese and the "Lieut", but as there was a professional photographer on the job with real equipment we refrained from intruding our little toy camera, thinking we could get a superior print from the professional. We did and Hoard's Dairyman, Fort Atkinson, Wis., paid three dollars for it.

This picture of the big cheese was strictly a news picture and was widely published by the papers of my state. To sell to newspapers, a print must have news value and it must be hurried into the office while it is

PICTURES, PASTIME AND PROFIT



"Laps," One of the Stages of Converting Wood Into Paper

The Lesson

news. News is anything out of the ordinary. So long as nature continues to produce potatoes of normal size and standard shape, there is no news value in a potato; but, when nature gets erratic and grows a spud of abnormal size or one with the spinal cord where the bicep belongs, then that potato is news. Likewise, Clod Macy may go down to his office every morning and return every night for forty years, meanwhile attending church every Sunday without becoming news; because he is doing just what millions of his kind in the tread mill of life are doing; but if he beats up his wife with an inner tube, builds his own coffin, that's different. If he happens to fall sixty feet with fatal results, Clod is news in his home town papers; local interest only; but if he falls sixty feet and comes up with a smile, a picture of the elevation from which he fell would sell to almost any newspaper in this country. And this is the psychology of news.

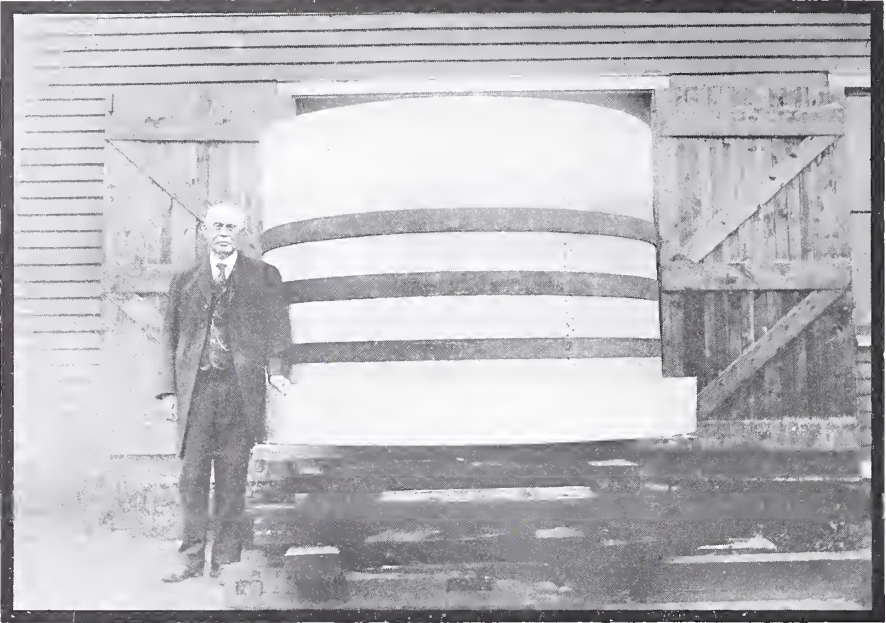
The Agricultural papers among which is Farm Journal already mentioned, Country Gentleman, Philadelphia; Farm Life, Spencer, Ind., and scores of others pay from fifty cents to three dollars each for prints with a distinctive farm flavor or short-cuts to better and easier work around the farm.

Other markets for pictures of stock, artistic groupings of farm buildings, new ways to use concrete, repair kinks and pictures that smack of the better side of country life are: New England Homestead, Springfield, Mass., Successful Farming, Des Moines, Iowa, E. A. Strout Farm Agency, New York City, and Journal of Agriculture, St. Louis, Mo.

Grit, Williamsport, Pa., and Saturday Blade, Chicago, Ill., illustrated weekly newspapers, want photographs of curious things, freaks of nature, the odd and queer happenings everywhere. The minimum rate is one dollar. Leslie's Weekly, New York, pays high prices for excellent pictures of current news. They have a liking for informal snaps of national celebrities at work or play, unusual occurrences of wide interest and appeal and striking events in the world of business or sports.

CAMERA CRAFT

The outdoor magazines like *National Sportsman*, Boston, Mass., *Outing*, New York, and *Outer's Recreation*, Chicago, Ill., want camping scenes, big catches of fish, wild animals in their native haunts, game birds in flight, hunting, fishing, canoeing and vacation sports.



THIS CHEESE WEIGHED SIX TONS

Photo by Mandeville Studio

The man is Horace Reese, heralded as the premier cheese maker of America.

I have purposely listed markets which require little writing in connection with submitted prints, though, of course, all must have sufficient descriptive notes to explain the photographs.

It will be seen from the accompanying illustrations all of which have sold recently to magazines, the quality of my work is the usual run of careful amateurs. The main thing seems to be to have a definite idea that can be translated into a picture, then photograph that idea isolated from every other one.

I use a Seneca in the 3-A size, equipped with a Goerz lens for closeup studies of plant life, or insect studies, bringing the specimens home from rambles afield where I can get away from annoying breezes and unfavorable light. For field work I carry a 1-A Kodak with special lens. My home-made lantern throws them up to four by five or any size I want retaining full detail and adding to the atmospheric effects. Once Nature and Culture, Cincinnati, Ohio, bought a life size study of a gorgeous hued butterfly for a cover design and when it appeared in print labeled with its scientific name I discovered that it was not a butterfly at all. It was a specie of moth. The label said so.

There are more than thirty thousand periodicals published in this country. Nearly all are illustrated with half tone cuts made from photo-

“GET THE PICTURE”

graphic prints. Some one supplies these pictures and is being paid generously for doing it. It is worth while to go through your accumulated stock of prints and negatives with an eye to finding some that are salable. Study the current numbers of different magazines and try to drift into harmony with their respective editorial ideals, then send in the best prints you can possibly make—prints which will fit exactly into their scope. Examine copies of the magazines at the public library or Y. M. C. A. reading rooms. When you send out prints remember to enclose return postage, not with the pictures, but in a letter. A title and descriptive text are necessary, but no fine writing or literary aeronautics will get by. Glossy prints always. Sharp detail, black and white. Sepias and toned prints won't do.



“Get the Picture”

By Frank B. Howe



With Illustration by the Author

It is the unfailing custom, in news photography, for events to occur just at the moment when the light is poorest, or the conditions worst, for making pictures. At least such is the impression that prevails among press photographers. Such an occurrence was the cause of a little stunt that Ye Editor thinks may be of interest and which may suggest a new use for enlarging apparatus to those who read this little tale.



EFFECTIVE WORK IS OFTEN PRODUCED ON SHORT NOTICE AND UNDER DIFFICULTIES

CAMERA CRAFT

At 5:30 in the afternoon of a heavily-overcast day, there came into the office a girl of news interest whose picture we had been trying to get for three weeks. We knew we would never get another chance to make the picture: we knew that the light coming into the room was impossible: and we also knew that local conditions made a flashlight inadvisable. It looked hopeless: yet the slogan of press photography is "get the picture, no matter how."

So, in despair, and with very faint hopes, we turned to the faithful reflector that forms the basis of the enlarging illumination in our office. It is equipped with a 100-watt lamp. Hauling this forth from its place and endeavoring to make it appear as though this was a customary occurrence, we proceeded to take a chance. The young lady had a friend with her, so we drafted the friend into service and made her the spotlight operator. A permanent stand of some sort could doubtless be arranged to replace said friend if this were to be an every-day practice.

With a more or less flat illumination, such as is customary where prints are to be reproduced in coarse-screen halftones in newspapers, we blazed away, holding the shutter open until the subject began to move. The limit of stillness was generally about three seconds and the stop used was about F-11, Portrait film, whose speed is said to be about the same as a Seed 30 plate, was used.

Not only did the fully-timed negatives nearly cause our demise from sudden surprise when they were placed in the developer, but the quality was much better than we had been getting with daylight. The reflector seems to give a peculiar quality of illumination that is ideal for negatives that are to produce prints for newspaper reproduction, while the light seems to be fully strong enough to warrant the assumption that it would be practical for getting pictorial effects in portrait work as well.

The prints reproduced herewith are contact prints on Azo F No. 2, from the negatives above described. They are not retouched or after-treated in any way. Please examine them from the standpoint of adequate illumination only. They are not offered for consideration as portraits, but as newspaper pictures. The two fields have entirely different requirements.

Anyone who has an outfit of this kind, a little time, and an inclination toward portrait photography might find it interesting to see what could be done along the latter line, using the enlarging reflector to supply the light. It would seem as though some excellent effects could be obtained without the necessity of great outlay for illuminating equipment.

[Note.—The author's suggestion is a good one. Many amateurs possess the necessary equipment to experiment along these lines in portraiture at home. Pleasing effects may be secured thereby.

There are workers, however, who are not so well outfitted, they must not be forgotten. We would remind these amateurs of the inexpensive flash sheet, which in some respects we prefer to powder.—E. F.]

View Holder for Stereoscope

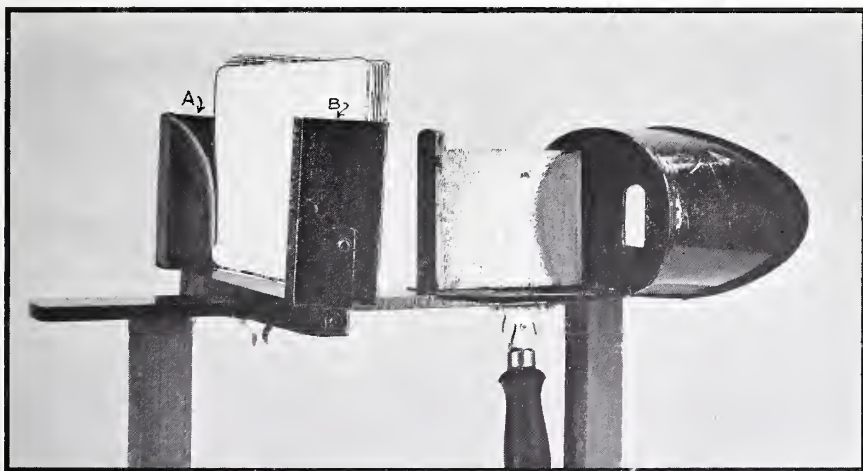
By James N. Doolittle



With Illustrations by the Author

Notwithstanding the unparalleled beauty and exquisite charm of the stereograph, stereoscopy, for some reason or other has never, in this country at least, enjoyed its full measure of popularity. Perhaps it's the "quick and easy" characteristic of the American photographer—the "you-press-the-button-we-do-the-rest" type of workman who has abandoned the view camera and the finer printing processes for the pocket camera and the gaslight paper that is responsible for the fact that the stereoscope and collection of views that was once present in every household has gone the way of other antiques.

By the person, however, who still enjoys the wonderfully realistic "stereo" the simple appliance illustrated herewith will be appreciated. It is merely a means whereby a number of cards may be held in the viewing frame at the same time and may be removed—automatically bringing the card behind it into the focal plane—without removing the eyes from the glass. Constructed of $\frac{1}{2}$ "x $1\frac{1}{2}$ " channel brass and two pieces of clock spring this attachment takes the place of the ordinary wire holder as regularly fitted to the sliding arm of the stereoscope. The brass can be obtained at any hardware store and the spring may be procured by purchas-

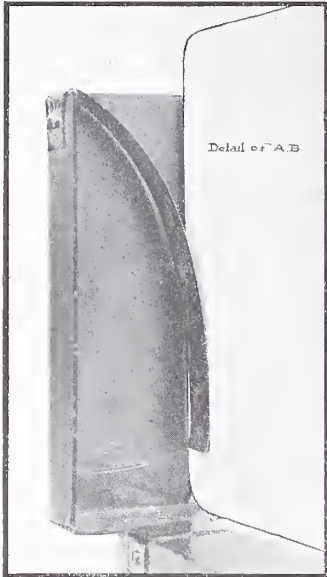


A VIEW, SHOWING THE MAGAZINE CARD HOLDER

CAMERA CRAFT

ing an alarm clock of the common kitchen variety, removing the "innards" with an ice pick or can opener, being careful to avoid the trajectory of the spring as it disengages itself from the balance of the machinery.

The appliance illustrated will accommodate about twenty-four views by mounting prints on both sides of the cards. So mounted the stereographs remain perfectly flat.



Detail of Magazine

[Editor's Note—The subject of stereoscopy is attracting considerable interest among camera users today. This is owing to the advent of the modern stereoscopic cameras. These instruments are an advance on the old types, being much more compact in design. Naturally the pictures are smaller, about $1\frac{3}{4}$ inches square each, but as they are magnified in the stereoscope one forgets their diminutive proportions.

No longer is it necessary for one to burden himself with a 5x7 camera, as in former days, to secure these delightfully realistic pictures, things are so changed now, that the new camera one carries is little larger than an ordinary hand camera.—E. F.]



This illustration is offered as an unusually good example of composition.
The original picture was a painting.

Photographic Wastefulness

By Theodore E. Peiser



The Reminiscence of an Old-Timer

In the days of wet plates and albumen paper there was a great waste of the very valuable metals, silver and gold, by ignorant, careless, or indifferent photographers. As Victor Hugo says in one of his books regarding the wealth going to waste in the Paris sewers, meaning the fertilizer, the same could be said about the loss of the solutions from photographic studios in the United States during the wet days. The "Prohi." who may read this will probably say: "and it wasn't confined to the photographic studios, either." Well, he gets no argument out of me. But, if I had my choice between the kind of poison handed out today, and the "poison" of these anti-

prohi. days, I would take the last. But, to get back to our mutton stew as Georges Carpentier would remark.

The few photographers who knew how and were sensible enough to do it, saved what was generally termed "The Wastes," because so much of it went to waste, were well paid for their trouble. Some saved their negative developers by having deep sinks in their dark rooms; the developer and rinsing water carried—and precipitated at the same time because of the iron developer—the "waste" into the bottom of the sink. Once or twice a year this was taken out and dried for mailing to the refiner. How those dark room sinks did st—, I mean, smell! but the first word would have spoken more truly. No wonder so many photographers were sickly. People attributed it to "the acids." They knew



THEODORE E. PEISER

When employed at The Grand Art Studio, corner of Third and Jessie Streets, as printer, in 1874.

no better. A better way, followed by the more cautious operators, was by

CAMERA CRAFT

keeping a large glass funnel, with filter paper in it, in a large bottle. The silver was precipitated and held back by the filter paper; only the water went to waste. Later, the mud was scraped out and dried and the filter paper burnt with the "trimmings" and spoiled prints.

The rinsing of the silvering, i. e., sensitizing tray, the first two washings of the albumen prints, the hypo fixing baths when old, the old toning baths was poured into a large earthen crock or wooden barrel. When this was full, sulphuric acid was added until the water turned blue litmus paper red. Then enough of a solution of sulphuret of potassium was added, until the water was almost black; it was the sulphuret of silver that made it that color. Then, it was left alone to settle, after which the clear water was drawn off by a rubber syphon. When the "mud" became several inches deep, it was taken out and dried; it resembled, more than anything else I could mention, adobe mud; it had cracks in it like adobe, also.

The paper trimmings, "burnt" prints, underprinted pieces, was burnt in the printing room stove in a quick fire, so it would leave nothing but white ashes. This showed that there was the maximum content of silver for the refining process. This was wrapped up securely and mailed together with the dried precipitates. After deducting the moderate charge for refining the "wastes," the chemist would return to the photographer silver crystals and gold chloride, the former selling in the stock houses at from about \$12.50 to \$14.00 a pound. Gold chloride was worth its weight in pure bullion. Many photographers used to take a \$2.50 gold piece, dissolve it in nitro-muriatic acid (aqua regia), and neutralize this with a lump of marble. Then, over a sand bath (a pan of sand placed over a coal oil flame, in which a porcelain dish was placed) in this porcelain dish the dissolved gold was evaporated to a dry mass. This was gold chloride. Some photographers added salt, or, to speak more professionally, chloride of sodium, but it was not necessary, all it was done for, was to make the prints red when put into the toning bath, and most photographers put the salt into the last wash water anyway.

"But soon a change came o'er the scene," as we used to sing of "Old Grimes' Cellar Door," when dry plates began to come upon the market. It took several years for them to supplant the wet plates entirely, but they succeeded just the same. The evolution from albumen and plain silver prints, however, took longer, for the first collodion and gelatine coated papers gave the photographers considerable trouble. But, like the dry plates, they eventually conquered. Then, the developing papers entered the ring, and they, today, with both commercial and portrait studios, predominate. The higher class studios use platinum or carbon paper on the very best work, but they are few compared with the users of developing papers.

Dry plates and ready prepared papers put an end to saving the "wastes," for it was thought that, seeing the work would be more difficult, it would not pay to bother; yet, in my opinion, where many pictures are made, there could be enough silver saved to pay for the trouble. Gold,

PHOTOGRAPHIC WASTEFULNESS

seeing there is no more toning done, is not used any more, except you mention that in sepia toning.

Years went by. Wet plates and albumen paper had been relegated to the past. Now, only photo engravers, electrotypers, with the newspapers, mostly use wet plates. Probably no place, except a few of the European countries, is albumen paper used any more. Chemists are not called upon to refine "wastes" any longer. After most of the other photographers had given up making wet plates, I made them—in the form of ferro-types, or as most people call them "tintypes," although no tin is used, only sheet iron, japanned—up to 1908. They were not the modern sort, dry ferro plates, but real wet plates. I have always felt that, except in the matter of speed, principally, the wet process, plates and paper, beat the present day preparations. I would like to see prints made fifty years from now placed alongside the prints made forty and fifty years ago—the latter would then be a hundred years old. Albumen prints can be compared to carbons or platinumums of the best grade. I have prints on albumen paper, taken nearly fifty years ago, and there is no sign of age about them. A little chafed from rubbing against others, that is all.

For years after I had given up saving "wastes," because, for one reason, I had so very little compared to the time when I had a pretty good business, and, further, because I, like the rest, did not think "waste" from the prepared plates and papers would pay to bother with. But I had some precipitate, a few ounces, I had kept all these years. So one day, I sent it off to my old chemists, C. Cooper & Company, 94 Worth Street, New York, for refining; just to see how much silver there was in it. Soon I received the assay, in the form of a nugget, or "button;" it weighed just one dollar. The value intrinsically was little, but, as a curio, its value was very considerable. I received a very nice letter from my chemist friends, saying they had not done any refining of "wastes" for a good many years; the dry plates and prepared papers had stopped it. But, for old times sake, they assayed my material, and would charge nothing for doing it. They thought the having of such a curio was a nice thing.

I wrote an article several years ago and gave it Mr. Clute for publication, along with the "button," for photographing for the illustration. Mr. Clute was ailing for several years, and he was really in no condition to attend to his business as it required. How it happened, no one knows, but my button was lost; whether it will ever turn up, is doubtful. I thought I was the only person in the United States, perhaps the world, who had such a memento of the old wet process days, but I have learned that there is another photographer, not one of the extreme old time members of photography, but well back, who has one—Mr. Gabriel Moulin, of San Francisco. I feel very sorry to have lost my curio, it would have made this article more interesting. So, I must ask the readers of *Camera Craft* to please send out a wish that my memento will yet turn up. Perhaps, some day in the future I may submit a more extended article relating to conditions during the "old days." I believe I have some interesting material to offer.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY, 1900

Vol. XXVIII

San Francisco, California, June, 1921

No. 6



FRANK S. NOBLE

Frank S. Noble, vice-president of the Eastman Kodak Company, died suddenly at his home in Rochester, New York, on the evening of July 5th.

His place in the world of commerce was important. To photographers and those in that business his life was important. He was ever sympathetic and helpful to all men and was loved widely.

His enterprise and industry were but material manifestations of the man. The warmth of his friendships, the number of his benefactions and his true Americanism proven during the war are less tangible but fully as real, and potent, factors in deter-

mining the measure of Frank S. Noble. He did more than endurance allowed. From the superhuman efforts as Director of Production of War Munitions he never fully recovered. In this he has given his life to his country.

He is gone from us, but we are better for his having lived. We cannot add honor to the memory of so good a man. God hath put the stamp of His favor upon him and these words are but a human attempt at the expression of a great sorrow, the recognition of a great loss.—S. B.

Our Magazine this Month

The subject of Soft Focus Lenses is today attracting more attention among pictorialists than ever. The article by H. D'Arcy Power, M. D., Editor-in-Chief of Camera Craft, with regard to these lenses will prove an addition to the literature on this very live topic. Dr. Power's position in the photographic world is authoritative, and his familiarity with the subject in hand, places him in an enviable position to give valuable information to the enquiring reader. We believe this contribution will prove acceptable.

In a letter we received from Mr. Odell, some months ago, he spoke of his early photographic experiences. In that letter he gracefully acknowledged the help that Camera Craft had been to him, and also expressed his appreciation for the encouragement he had received from Mr. Clute, its late editor and owner. Of course, our contributor was speaking of the years gone by, but he had not forgotten us, neither had, what a beginner would like to know, slipped from his memory.

As a free lance in pictorial news work, Mr. Odell has written a most interesting article in "Pictures, Pastime and Profit," and we feel sure our readers will be interested.

To that question, "How can I dispose of my photographs?"—we urge those enquirers to read Mr. Odell's article, think on it and study the situation. It will add zest to the work to know just what to do and where to place the product. We can probably do the photographing well, then there remains the study of the market and the more we are conversant with the game—it is a game, is it not?—the more returns there will be.

The Jazz in portraiture is with us. It was too strong to be confined to music alone, and it slipped or slopped over upon photographic portraiture.

What kind of portraits do you like best, of a relative or of a dear friend? Your choice would probably be with the picture most like them, at their best. Remembering this, it does seem strange that many of our friends should decide that a photograph of themselves in a perfectly unnatural lighting would be just what we want.

When the world was young Old Sol warmed it and lit it from one quarter, the world did well with that "single lighting," but the jazziest photographers of our day have gone Old Sol one better and they light from two quarters, with a twilight, nay, sometimes almost night in between—and your portrait did badly—so your friends probably thought, because, you did not look just as they knew you.

There is an article on this subject, entitled, "Back to Normal," by Jas. H. Smith. Mr. Smith is not putting forward a fad, he is merely advocating sanity in photographic portraiture. It is easy to see Jas. H. Smith thinks we should give our friends portraits they will recognize us by and would like to have, for the simple reason they are like us.

Our other contributors, Frank B. Howe, James N. Doolittle and Theodore E. Peiser, add to the variety of our subjects; and again Camera Craft goes forward to meet its many friends.—E. F.

The Gum Process

The gum print has been spoken of as something almost of the past, it has so been stated in at least one leading foreign contemporary. This statement is correct, as far as the average amateur is concerned. We might say, it was never a process for the average, it belongs to the individual who has individuality.

Individuality, in the treatment of anything, is indeed a rare gift. We notice it in childhood, or perhaps we should be more correct in saying, it is noticeable in babyhood, but our general system of training tends to eliminate the gift, by fashioning all to a general level; broadly speaking, to the similarity of "peas in a pod."

To all rules there are exceptions, and where these exceptions are regrettable we dub them by the all embracing title of "cussedness." But—and we may felicitate ourselves that it is so, there are a few here and there in all lines of endeavor, who have preserved, or perhaps who have redeveloped their individuality to an extent that it becomes a blessing to mankind. These shining lights, for such they may truly be called, illumine the gray or the drab of general existence by adding to our knowledge and pleasure.

The gum process is not dead. As long as we have those who are willing to work for the pleasure of working, it is not likely to die. There is something encouraging, elevating, in the contemplation of the true amateur: one who does a thing for the love of it. What wonder is it the real amateur is invariably a success.

To the class of true amateurs belongs Mrs. Nancy Ford Cones, and we are pleased to promise Our Readers examples of Mrs. Cones' work, done in gum. We will not pause to dwell on the subject of the pictures themselves; as written descriptions are inadequate, but in our next issue we shall begin the publication of some of this lady's portraits as illustrations for three articles being written on this subject.

Professor Daniel Cook, University of Cincinnati, has undertaken to provide the text for these articles, and as Professor Cook is an artist himself, we may look for something both interesting and instructive.—E. F.



A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Anaglyph

It is to the late Ducos du Hauron that we are indebted for the anaglyph—the stereoscopic lantern slide. Although the process is well known and details are available for the preparation of the slides, very little use has ever been made of it. This is due to the fact that it has been looked upon more or less as a scientific curiosity.

In reality it is anything but that. It is a thoroughly practical process, and when the anaglyphs are properly made and projected they give pictures of extraordinary beauty. There is nothing difficult about the making of the slides. There are a few things that one must guard against but the trouble one encounters is more apt to be due to the inability to procure suitable dyes for staining the images and viewing filters than to the inherent defects in the process itself.

Although primarily intended for lantern slide projection, the anaglyph with slight modification is adapted for ordinary stereoscopic work, and it is with this phase of the subject that this article will deal.

In order to understand the optical principles on which the obtaining of the effect desired is based, let us consider a simple case.

Take a green print made from the right hand side of a stereoscopic negative and examine it through a piece of green glass. If the green in the picture has the same absorption power as the glass, nothing will be visible. Now take a red print made from the other side of the negative and examine it through a piece of red glass. As before, nothing will be seen, provided the glass has the proper absorption qualities, which we assume it has.

Now reverse the pictures and examine the green print through the red glass and the red print through the green glass. There is now a different story to tell. In

both instances you will see a picture, the lines of which will be black.

Mount the two pictures together, and you will have an anaglyph. If this has been done properly, the eyes looking through glasses of different color will see, not two, but a single image in monotone, as in viewing an ordinary stereoscopic picture.

In one particular the anaglyph differs from the stereoscope very materially. Whereas in the latter it is customary to preserve a distance of about two and three-quarters of an inch between centers, in the anaglyph the distance is reduced to a quarter of an inch or even less. This is practically superimposing one picture on another, and because of this the top picture must have a transparent support. How this may be done will be described later on.

One of the most difficult things that one has to contend with in the making of anaglyphs is the procuring of suitable colored glass. Many workers use stained film for the viewing glasses and, generally speaking, it is the most satisfactory solution of the problem.

As a matter of convenience, the glasses or film, as the case may be, are mounted like a pair of ordinary spectacles and used in much the same way. There is no particular rule as to which eye is to have the red or green filter. The essential thing is, that having determined upon the arrangement, to see that the pictures are properly placed for viewing. If the right eye has the red filter, then the right hand picture must be green, and the left eye having the green filter, the left hand picture must be red. Each eye will then see but one image, and if these have been reversed, as is customary in the ordinary stereoscopic work, the effect will be that of a single picture standing out with all the life and naturalness that is characteristic of views of this type.

CAMERA CRAFT

A few words of explanation may make some of the details of the process a little clearer. First of all, let it be understood that the worker is not confined to the two colors red and green. Any two colors may be used, provided they are complementary. Red and blue are frequently used and are preferred by a great many.

Let us assume that we are about to make an anaglyph using these two colors and that the blue will be used on the right hand side and that it will form the background on which the red is to be super-imposed. If we decide to make the blue image on paper, as is frequently done, several processes are open. We may make a cyanotype or blue print or we may employ carbon. Or if not satisfied with these we may make use of one of the many toning processes which will give the desired effect.

If instead of an opaque background we decide on a transparency, still other ways are opened up of which the pinatype process is unquestionably the best, and for that matter the only one which the worker should use if he is seeking the best results obtainable.

The background having been obtained, the next step is to secure the second image on a transparent support. Carbon tissue, such as is used in tri-color work, is admirably adapted for this purpose when mounted on thin celluloid.

If one does not wish to employ carbon, he may make use of a piece of negative film. The unexposed film is first sensitized in a bichromate solution in precisely the same way that one would treat carbon tissue. When dry it is exposed under the negative in a printing frame with the gelatine side reversed. At least five or even ten minutes' exposure to the sky is desirable. The object is to tan or render insoluble the gelatine. Those who have worked with carbon will understand what is wanted. The film is now placed in warm water and the soluble parts removed by gentle laving; a soft brush, if necessary, being used to hasten the action. It is then fixed, washed and dried, after which it is ready for dyeing.

The dyeing is really the rock on which the anaglyph is either shattered or finds a firm support. At the present time it is

extremely difficult to find any suitable organic dyes, but here and there one may run across some, and when this happens it will well repay anyone interested in the subject to look into the process.—Harrington's Photographic Journal.

Ives' Medico-Chromograms

Mr. F. E. Ives announces that he has introduced a sufficiently truthful, simple and inexpensive system of color photography for making records in medical hospitals, comprising a special stereoscope color camera, a simple fixed-focus copying camera for making transposed-image color transparencies and the Verak Stereoscope for viewing them in natural relief.

Technically a "two-color" process, it is in reality a two-color-plus process, by virtue of Mr. Ives' invention of the dichroic red-to-yellow print from the green-blue negative color record, and truthfully renders the colors found in the class of subjects for which it is recommended.

The stereoscopic feature is most important in this kind of work, and involves no complication in the operation of the process. The images as seen in the Verak stereoscope are convincing re-creations of the subjects photographed, without "structure," and in true relief and perspective.

Two identical panchromatic plates are exposed simultaneously and developed simultaneously, producing the stereoscopic negatives by Mr. Ives' original and most simple photographic mordant dye process, converting the silver image to a transparent variety of silver ferrocyanide, which in turn mordants the respective colors from basic dye baths. Any desired number of the stereoscopic color prints can be made from the original negatives, also lantern slides and paper prints. Particulars and prices are obtainable from Mr. Ives, 1327 Spruce Street, Philadelphia, U. S.

Autochrome Portraiture

M. Hervé, one of the veterans of the French Photographic Society, recently delivered before the latter body a short talk on the attractiveness of Autochrome portraiture by natural light out of doors or in the studio. While admitting that exposures ranging from 10 to 40 seconds were necessary in his experience for successful work, he nevertheless found that there

A PHOTOGRAPHIC DIGEST

were numerous graceful poses in which sitters found no difficulty in remaining motionless for such times. He advised that colors in the costume should be neither too dark nor too pale; light blue and mauve are especially to be avoided, whilst Japanese blue, dark green and bright red yield excellent results and a bright note of color if used with discretion. He advised that direct sunlight should be avoided. Whilst in an open courtyard or garden an exposure of 10 seconds may be considered a normal one, 4 or 5 seconds will suffice on a sea beach, but in woodland surroundings, where the reflected light is predominantly green, 25 to 30 seconds will be necessary. M. Hervé gave these data as purely arbitrary and not in accordance with the indications of an actinometer. Yet in his experience they had proved a useful guide for relative exposures under different conditions. When using a lens of aperture f-10 or f-12, he would consider 20 seconds as approximately the normal exposure, which naturally could be greatly reduced by the use of modern lenses of larger aperture. A great deal of his work had been done, however, with a Dallmeyer lens of about f-10 aperture. He found it of advantage to make a pretence of exposing a plate in order to put the sitter at his or her ease through long exposure. He found that sitters experience no difficulty in remaining still for the necessary length of time after having once or twice realized how long it was.—B. J. of Photography.

A New Green Sensitizer

[In the following note, published in the current issue of "Photographische Rundschau," Dr. E. König gives the first particulars of a new color-sensitizing dye which has special and greater sensitizing properties in the green part of the spectrum, and is found to confer an advantage in practice in the making of the color-sensation negatives for processes of color photography or color cinematography.—Eds. "B. J."]

At the present time there is no lack of red sensitizers. The red-sensitiveness of plates sensitized with pinacyanol or similar dyes fulfils all the requirements of photographic practice. Our aim of late years has, therefore, been not as formerly

the improvement of red-sensitive plates, but the discovery of a specific sensitizer for green. From both the scientific and practical standpoints this long-desired dye has now been obtained in a new coloring matter to which the name of pinaflavol has been given.

Pinaflavol belongs to an entirely new class of basic dyes, and was prepared in the photo-chemical laboratory of the Höchst dye works by Dr. Robert Schuloff. The dyes of this series are characterized by their yellow color and by their specific sensitizing properties for the green part of the spectrum. Their behaviour towards acids is similar to that of the pinacyanols; they are stable towards acetic acid, but are decolorized by mineral acids.

Dr. J. M. Eder writes of the new dye as follows:—"In Pinaflavol we have obtained the long required green sensitizer, having a maximum at about the line E (wave length 530mμ) falling sharply to D and extending without gaps to F. In comparison with the eosine dyes Pinaflavol does not exhibit the unfortunate minimum in the blue-green, but yields a strong, even spectral band over the whole of the green, blue and violet."

As regards the sensitizing curve of Pinaflavol, the rapid fall of the sensitiveness at D (in the yellow) is of special interest. In practice this fact is shown that in making an exposure on a colored chart with a medium yellow filter the yellow-green is obtained stronger than the yellow. In orthochromatic photography there is, of course, no advantage in this, since yellow is visually lighter than green. Thus, for the preparation of orthochromatic plates the older sensitizers, erythrosine, ethyl-red or Pinaverdol are to be preferred. But in processes of three-color photography the advantage is proportionately greater. As is well known in making a set of three color-sensation negatives the red printing plate exposed through the green filter requires the longest exposure. The isocyanine or erythrosine plates hitherto used all possess a considerable sensitiveness to yellow and even to orange. It is, therefore, necessary to damp down the yellow and orange by means of the green filter in order to obtain the better effect of the

CAMERA CRAFT

green. But a green filter, on account of the density of all green dyes, absorbs a good deal of light, and, therefore, considerably prolongs the time of exposure.

Owing to its favorable sensitizing curve, Pinaflavol allows of the red printing negative being made with a yellow filter; the filter requires only to fulfil the purpose of cutting out violet and blue. Inasmuch as yellow filters are of a high degree of transparency, the time of exposure can be reduced to at least one-half. This shortening of the time of exposure is of considerable value, not only to makers of three-color process blocks, but also to those practising photography in natural colors, and particularly in color cinematography, where any reduction of the period of exposure is an important advantage. It will thus be seen that Pinaflavol is an important addition to the available color sensitizers, and represents a notable piece of progress in color photography.

Pinaflavol is used in the same manner as the cyanine and isocyanine sensitizers. The sensitizing bath is made as follows:

Distilled water	100 c.c.s.
Pinaflavol, solution of 1 part in 1,000 parts of water	2 c.c.s.

Plates are bathed in this sensitizing bath for about two minutes in the dark, or by red light, allowed to drain thoroughly and dried. The sensitizing bath compounded with a mixture of alcohol and water, as is largely employed with the isocyanine dyes, may also be used, but yields plates of a lower degree of sensitiveness. Experiments made in the way of combining Pinaflavol with other sensitizers have so far failed to yield good results. Pinaflavol is

also suitable for the sensitizing of collodion-bromide emulsion, for which purpose about 20 c. c. s. of a solution of 1 gm. Pinaflavol in 1,000 c.c.s. alcohol are added to 1 litre of emulsion.

Dr. E. König.—B. J. of Photography.

Cascade Washers

We were recently asked for advice upon the selection of a system of washing prints and enlargements which were coming through all day at irregular intervals. In these circumstances we unhesitatingly recommended what is generally called the cascade method. It is based upon an old idea which has stood the test of time, and it is simple and not wasteful of water—a matter of some importance nowadays. The installation consists of a series of wooden troughs, each large enough to accommodate the biggest prints likely to be dealt with in quantities. These are arranged like a shallow flight of stairs, the water flowing into the uppermost one through a perforated tube at the farther edge. When the first tray has filled, the water overflows through a series of openings into the tray below and from that in the same way through the others. In most cases a convenient arrangement would be four trays, each about 24x20 and five inches deep, and if space be limited the trays may slightly overlap. The prints, after a preliminary rinse from the hypo, are placed in the lowest tray, and after five minutes in this are successively placed for the same time in each of the higher ones. If a large number of prints have to be dealt with the number of trays may be increased, so that the longer time will compensate for the crowding in each tray. —B. J. of Photography.



THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

On Choosing a Camera

This undertaking is about as puzzling to the beginner in photography as any thing could possibly be. It certainly seems the more catalogues we read the more dubious we are, yet we have to make some sort of a beginning.

It has been stated by some, a good way to start is to buy a low priced camera of the box type, and work with that until familiarized, thereby learning the many essentials of a new undertaking. This may be good advice, but there is another viewpoint, which applies to some.

I have noticed the one great drawback to investing in a low priced camera is, what I may call its moral effect on some users. Some of us are so constituted that we do not value that which costs little. We are prone to regard the inexpensive box camera as incapable of producing good work (which is entirely erroneous) and on that account we are very apt to attribute our lack of success to the low cost of the instrument. Under these conditions progress is slow; it is but natural.

For these reasons then, I believe it is good practice to remove the temptation of self excuse. Buy the best camera you can afford; go your convenient limit. The actual outlay need not be excessive, so long as we confine ourselves to the best in the small sizes.

To the natural question, what is the best camera? I unhesitatingly reply, the one you like best. There are a host of very fine cameras on the market, both of domestic and foreign makes. It is entirely a matter of individual preference.

Here is a true story to illustrate my point: Some four months ago I received a letter from one of our readers in Canada, asking for information on some foreign makes of cameras, at the same time the writer made it clear he was not interested

in cameras of "Heinie's" construction, as he termed the German product. You will appreciate the fact this correspondent was prejudiced, German made cameras would not suit him, he would not be contented with them. Under these conditions then the probability is, this man might do better work with cameras of British or French origin. Notwithstanding the fact there is little, if any, choice between all three makes.

There are some technical points I would have you understand before you buy your camera. You will then see that your choice is not confined to any particular make. There is not the slightest doubt that just as good pictures can be made, and are made, with American cameras and lenses as can be produced with instruments of foreign manufacture.

Hand cameras, being so popular to-day, we will confine our remarks to them. A clear conception of the following will help you select your camera understandingly. We will consider the focusing cameras, as they are the more generally useful. As hand cameras are invariably used in the hands, we have to guess our distances when focusing. The greater the depth of focus your lens possesses at the full opening, the less liable are you to have your picture out of focus. A small lens then, that is a lens made for a small sized picture has a greater depth of focus than a lens made for a larger picture, both lenses being used at the full opening.

For example: A vest pocket camera with a lens of $3\frac{1}{2}$ -inch focus, with the largest stop or at full lens opening, would have everything in focus from 9 feet to infinity. On the other hand a lens of $5\frac{1}{2}$ -inch focus making a 3x5-inch picture would show things in focus from 17 feet to infinity. The picture is larger of course and the objects in that picture are larger,

CAMERA CRAFT

but we do not have the same margin for error in our guessing of distance. That difference is 8 feet in favor of the smaller camera. Now it is quite possible to lose our picture on account of that 8 feet, by this I mean the picture might be so out of focus as to be useless. This difference in a picture is known as the depth of field, and you will understand now that the difference between the two cameras under discussion is, the smaller camera gives you pictures of a greater depth of field, in focus.

Many amateurs do not care for pictures made vest pocket size, they deem them too small, forgetting altogether that a print twice as large, or four times the area can be very easily made with the aid of the low priced Brownie Enlarging Box. As I am given to doing these things and am well satisfied with results, I have confidence in recommending the method.

Probably the two most popular sized cameras today are the $2\frac{1}{4} \times 3\frac{1}{4}$ and the postcard size, $3\frac{1}{4} \times 5\frac{1}{2}$. The $2\frac{1}{4} \times 3\frac{1}{4}$ makes a pleasing print by contact, not too small, and a first class enlargement post card size in the Brownie Box. The making of an enlargement by this means is not more difficult than the making of a contact print. We certainly shall not need to enlarge from all our negatives and while I personally favor a $2\frac{1}{4} \times 3\frac{1}{4}$, for reasons above mentioned, it has an added advantage, for as a friend once remarked, it costs less "to feed" than a hand camera of larger dimensions. These remarks will perhaps help you to settle the question as to the size of camera you would like.

Now we come to the question of lenses, what shall we select? There are three distinct types: the single, the rectilinear, the anastigmat. For pictorial work the single lens, under favorable conditions, will give as satisfactory results as any. This lens has two marked faults, however, as compared to other lenses, it is slow, its use in hand camera work must be confined to well lit scenery or objects. The other objection to it is, its failure to give marginal lines in true rectilinearity, and this defect is very noticeable in pictures of architecture. This lens, on account of its modest price, is supplied to the cheaper forms of cameras.

The rectilinear is about twice as fast and is free from marginal curvature, it is an excellent lens of the lower price, it has some defects in definition if used wide open, but these defects are not noticeable in pictorial work. This type of instrument was for many years considered the all-round lens.

We have now arrived at lenses of the anastigmat type, these are an improvement on the rectilinear. A very excellent lens of this group is the one working at the stop F:7.7, for speed this lens is practically the same as the rectilinear, but its superiority to that lens lies in the fact it has a flat field, a valuable quality where a flat field is necessary, but it is seldom necessary in pictorial work. So I would strongly advise the reader, if convenient, to skip this lens in favor of the anastigmat F:6.3, now this lens is twice as fast as the rectilinear, which really means, your chance is doubled in getting the picture should the light not be the best.

The next lens to engage our attention is the anastigmat working at the stop F:4.5, this lens again, is twice as fast as the F:6.3 and if the novice were to stop reading right here, he might conclude that this was just the lens for him. To set his mind at rest I will hasten to explain that to gain this extra speed a certain depth of focus had to be sacrificed and on that account the guessing of correct focus is difficult, neither has this lens the depth of field possessed by the F:6.3. For cameras of the Graflex or Reflex type the F:4.5 is a very valuable instrument, but in that case we focus by the aid of a mirror, guessing is entirely eliminated.

If the question of extra cost may be waived, this F:4.5 lens would occasionally serve a useful purpose as a reserve power, but it would have to be stopped down to F:6.3 to have the advantages of that particular lens.

To sum up this question of lenses then, the beginner will find a small camera fitted with an anastigmat F:6.3 will give him an outfit with which he can not well find fault. If there should be any error in the work, it is always a comfort to know where to place the blame, neither need we apologize that our work is only the product of a hand camera.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

NEW MEMBERS

4969—Arthur A. Smith, 841 Leeson Ave., Van Wert, Ohio.

3x4 or 5x7 of landscapes, flower studies and genre; for artistic photos of any kind or anything of interest. Class 1.

4970—Clovis L. Desaulniers, No. 6 Whasse St., Southbridge, Mass.

2¼x4¼ of miscellaneous; for overseas, views of forts, guns, etc. Class 1.

4971—H. Schnirring, 425 East 161st St., Bronx, New York, N. Y. Class 2.

4972—Helen M. Briggs, R. F. D. 1, Box 20, Tioga Co., Middlebury Center, Pa.

Class 2.
4973—Dr. James R. Frow, Dare P. O., York Co., Va. 15½x2½, 2¼x3¼, 2½x4¼, P. C. 5x7, 3½x12 of country, views, seashore, etc., Florida views, aeroplane and dirigible; for misc., especially of soft focus.

Class 1.

4974—Edgar Bridge, 1512 Adams St., Corvallis, Oregon.

Class 2

4975—Harry B. Bradley, 188 Loma Alta St., Los Gatos, Cal.

Class 2

4976—Salvador Navarro, 4412 Dix Ave., Detroit, Mich.

Post cards and 5x7 of figure studies (oil colored); for the same only. Class 1.

4977—H. G. Hayes, Box 135, Castleford, Idaho.

Class 2

RENEWALS

1213—A. B. Davis, 610 Parkview Ave., Detroit, Mich.

3329—George R. Bunn, 1945 Michigan Ave., Los Angeles, Cal.

3523—E. Wesley, 1817 LaSalle St., St. Louis, Mo.

4112—James E. Gifford, Letter Carrier No. 142, Benson Sta., Omaha, Neb.

4132—Carl S. Carlsmith, Hilo, Hawaii.

4224—Dr. A. W. Parker, Box 355, Santa Maria, Cal.

4355—C. S. Beardsley, P. O. Box 573, Vallejo, Cal.

4497—J. A. Mountain, 329 Broad St., Newark, N. J.

4634—Chas. N. Fenton, 203 Copster Hill Rd., Oldham, England.

2½x3½, 3¼x4¼, 3½x5½ of landscapes, marines, portraits; for anything of interest, also lantern slides. Class 1.

4384—Dan H. Reese, Paradise, Cal.

CHANGE OF ADDRESS

1572—H. E. Bishop, 6210 Dorchester Ave., Chicago, Ill.

Class 2. (Was 3344 Michigan Ave., Chicago, Ill.)

4718—T. C. Duvall, 1010 L. A. Ry. Bldg., Los Angeles, Cal.

(Was 753 Pac. Elec. Bldg., L. A., Cal.)

4868—H. Carl Marmon, Tennessee City, Tenn.

(Was P. O. Box 61, Wartrace, Tenn.)

4892—Oscar Allen, Kerens, Navarrol Co., Texas.

(Was Harrisburg, Tex.)

4399—Anton Berest, 5100 No. Broadway, St. Louis, Mo.

(Was Irondale, Ala.)

4933—W. F. Perez, Box 1931, Jacksonville, Fla.

(Box No. omitted in the April issue.) Class 1.



NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—"Adv." and "Not Adv."

Reported by Wm. Wolff

Mr. Barman of Salt Lake Photo Supply Company entertained quite a few Elks as they passed through, going to the convention at Los Angeles.

Denver dealers are all very busy with summer tourist trade.

Z. T. Briggs Company of Kansas City, have improved their store and have added some new clerks.

Mr. Eisleben of Hyatt Supply Co., St. Louis, Mo., is as jolly as ever. Miss Linsay is still his secretary. All hands were very busy when the writer called on them.

Called on Francis Bruguere while in New York. He has a studio on Fifth Avenue and reports business very good.

Mr. Huesgen of Herbert & Huesgen, New York, is on his way to Europe. Will return some time in September.

Mr. A. Rothschild, formerly with Houch Album Co., Boston, has taken charge of the Camera Department of Schnellenberg's Department Store at Philadelphia.

Mr. Bob Lieber and family of H. Lieber Co., Indianapolis, went to the Coast for a vacation this year.

Met Mr. F. E. Colwell of Albany, N. Y. He has a large photo and framing business. Mr. Colwell came to San Francisco as early as 1872 and sold mouldings to people like Sanborn, Vail & Co., and S. & G. Gump.

While in Boston renewed my acquaintance with Mr. Woodbery of Pinkham, Smith Co., Mr. Graham of Robey-French, Mr. Wonson of Andrew J. Lloyd and Mr. Ennis of the Defender Photo Supply Co.

Mr. Green, who has the Burke & James New York branch, showed the writer through his place. Will say it is very well

kept and up-to-date. Mr. Saubert, formerly with Marsh & Company, San Francisco, is also connected with the branch.

J. L. Lewis, New York, is still selling lots of Seltona paper.

Now for the weather report—very hot in the East and was very glad to get back to the breezes of the Pacific.—Adv.

The View Finder

In this monthly announcement of the California Camera Club, we learn, this club was incorporated in April, 1890.

The California Camera Club is the second oldest camera club in America. So far as is known, it is the largest in the world.

Believing this, and living in the land of sunshine, the members have a hard time to restrain themselves from "whooping her up." We admire their self restraint, (that also means we admire ourselves), for our sympathies are wholly with them.

During the present year members have exhibited at every salon in the United States, several in Canada and across the waters. Among its membership are some of the leading pictorialists in this state. Six international salons have been held under the auspices of the C. C. C.

Demonstrations, lectures, representative exhibits from the Associated Camera Clubs of America, one-man shows—these are a sample of the monthly calendar used to further the knowledge of the art of photography.

With the record the members possess, and the place the club holds in the photographic world, it is satisfied that all success has been achieved through cooperation of the members and without outside support or patronage.—Not Adv.

NOTES AND COMMENT

Assistant Photographer (Wet Plate). United States Civil-Service Examination

The United States Civil Service Commission announces an open competitive examination for assistant photographer (wet plate) on August 3, 1921. A vacancy in the Engineer Reproduction Plant, Washington Barracks, Washington, D. C., at \$1,200 a year, and vacancies in positions requiring similar qualifications in the Federal classified service throughout the United States, including the apportioned Departmental Service at Washington, D. C., at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Residence and domicile—Applicants may be examined at any place at which this examination is held, regardless of their place of residence; but only those who have been actually domiciled in the State or Territory in which they reside for at least one year previous to the examination, and who have the county officer's certificate in the application form executed, may become eligible for permanent appointment to the apportioned service in Washington, D. C.

Applications—Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C. Applications should be properly executed, excluding the medical certificate, and filed with the Commission at Washington in time to arrange for the examination of the applicant.

The exact title of the examination, as given at the head of this announcement, should be stated in the application form.

Preference—Applicants entitled to preference should attach to their applications their original discharge, or a photostat or certified copy thereof, or their official record of service, which will be returned after inspection.—Not Adv.

Kodakery for June

The June number of this entertaining and instructive little magazine has the usual appeal to the amateur photographer. There are many child pictures scattered among its very liberal supply of illustrations.

An excellent and instructive article is "Photographing Flowers in Field and Garden." Many of these flower studies are made with the Kodak Portrait Attachment and hand cameras; they are beautifully done. The great advantage of this attachment besides making the actual flowers larger than they would otherwise be without its aid, is the fact that the background is thrown into soft focus or out of focus—if you prefer that name and thereby we secure that artistic relief, that emphasis to our principal object. Everything else being softened down, the eye is not bothered by detail unessential to the picture.

If some of our friends who have been so kind as to contribute to that page in *Camera Craft*, "Our Wild Flowers," were to look these pictures over, they would glean information of value.

There is an article on "Buildings as Backgrounds for Out-door Portraits," which makes good reading, as the home portrait will ever be a subject of interest to the army of camera users.

"Children and Their Chums;" here are two pages of pictures of interest to everybody. A chapter on self portraiture also claims attention. Almost a comedy, is a picture and article on "Wild Bird Life."

Readers should not overlook "Recomposing by Enlarging," a valuable article for the novice; everybody in fact has some negatives that can be made to yield better pictures by enlarging a portion of that negative, instead of printing from the whole of it.—Not Adv.

The London Salon of Photography

Intending exhibitors at the London Salon are reminded that all pictures must be received by the Hon. Secretary, Wednesday, August 31st, 1921.

Conditions of Entry

No. 1. Pictures from exhibitors in the British Isles must not be framed; but may be mounted. Each picture must bear on the back, clearly written, (a) name of artist; (b) number and title of picture; (c) price, (if any); corresponding to particulars on the Entry Form.

No. 2. When mounts are employed, they should conform to the following sizes: 15x12, 20x16, or 25x20; but no mount to

CAMERA CRAFT

exceed 25x20; and it is suggested that white or light-toned mounts be employed wherever possible.

No. 3. Pictures from abroad must not be mounted (or framed), but should bear full particulars as above.

No. 4. Pictures which are sent unmounted will be suitably mounted by the Salon Committee, and all accepted pictures will be shown under glass.

No. 5. All pictures should be sent by parcels post, packed flat, and properly protected with stiff cardboard and adequate wrappings, addressed to:

THE HON. SECRETARY,
The London Salon of Photography, 5A,
Pall Mall East, London, S. W. 1—Not Adv.

The Photographers' Association of the Pacific Northwest

We are in receipt of a letter from A. T. Bridgman, secretary-treasurer of this association, of interest to intending exhibitors at the convention, to be held at Vancouver, B. C., August 2d, 3d, 4th, 5th.

The booths will be built complete for your use, no further expense on your part being necessary. The cost of entry of your exhibit into this country from the United States will be \$2.50 for the whole exhibit.

Certified invoices will be necessary, which will have to be sworn to and the exhibit will be cleared from customs without any delay. Please address all exhibits to the Photographers' Association of the Pacific Northwest, care of the secretary-treasurer. The association will go bond on your exhibit to meet the requirements of the customs officers.

Please wire by night letter, stating how many spaces you will require, with first and second choice regarding location, and in your wire state the name of the men who will represent you at the convention.

Your immediate action in this matter will be appreciated by the executive board.

—Not Adv.

With the Camera

(Notes from the Illinois College of Photography and the Bissell College of Photo-Engraving, Effingham, Ill.)

President and Mrs. L. H. Bissell have just returned from an automobile trip of several hundred miles. They report considerable road building in different sections, which will, when completed, greatly add to the pleasures of motoring. The longest stretch of concrete highway over which they traveled, was from Chicago to Danville, Illinois, 137 miles.

June is always the month of brides and roses, and this year was no exception, so far as the I. C. P. is concerned. Mr. Larry M. Cranford has just returned from Shreveport, La., where he was united in marriage to Miss Correne Gewin.

The tennis court is a busy place these warm days, and is frequented by many "experts in the making." Prof. Everett R. Eaton seems to hold the honors thus far.

An announcement has been received by us stating that Wilfred Kingdon, weight nine pounds, has just arrived at the home of Mr. and Mrs. Floyd J. Kingdon of Spencer, Iowa. Mr. Kingdon is an I. C. P. graduate of 1920. Congratulations.

The June attendance this year was the largest we have ever had for the month of June. It seems that Photography is becoming more popular each day, and those wishing to take it up as a profession realize the best way to learn the work is in an institution of this kind.

Students and Faculty were considerably and agreeably surprised when Carl H. Mulder and Miss Katherine J. Boyle "stole a march" and were quietly married last week. We have since learned that the romance started before they entered the college, dating back to the time when Mr. Mulder wore the Navy uniform. The groom was so rejoiced, he saw that all were treated to either cigars or candy.

It is with pleasure we read that at the meeting of the South-Eastern Photographers' Association, held in Atlanta, Ga., in May, C. W. Dishinger was elected President. Mr. Dishinger will be remembered as a former student and instructor.—Adv.

CAMERA WANTS

Advertisements of the nature shown below will be inserted under this heading at the rate of fifty cents each insertion, for twenty-five words or less; each additional word, two cents extra, cash with order. Those of positions wanted inserted once free. No regular business advertisements accepted. These advertisements MUST BE PREPAID.

FOR SALE Kodak Finishing Shop doing local, mail order and drug store work. Large open territory to establish agencies. Price \$400.00. Williams' Kodak Service, The Dalles, Oregon.

FOR SALE EXCHANGE Auto Graflex, $3\frac{1}{4} \times 4\frac{1}{4}$, B. & L. Tessar lens, f-4.5, roll holder, 6 plate holders with case, \$90.00; or for No. 1 Eastman Auto Special f-4.5 lens only. H. T. Newcomb, 891 Elm St., Woonsocket, R. I.

FOR SALE Ingento Style A-3 Enlarging Lantern with 9-inch condensing lens for 5x7 negatives. Perfect condition, used only a short while. New price is \$133.00, will sell for \$85.00. J. E. Sinclair, Box D, Sterling, Kansas.

FOR SALE One B. & L. Kodak, anastigmat lens, f-6.3, $8\frac{1}{4}$ -inch focus in Volute shutter for 5x7 camera; new and in perfect condition. Cost \$74.00, will sell for \$60.00. J. E. Sinclair, Box D, Sterling, Kansas.

WANTED Second-hand Cooper Hewitt lamp, 50-inch to 60-inch long, AC 6 cycles; one 8x10 printer; one f-4.5 lens; 11x14 view or banquet camera, light weight. B. W. Moulton, Quincy, Ill.

TRADE 4A Speed Kodak, with case, no lens, like new. For anastigmat lens in shutter or barrel. Or 5x7 Speed Graphic, Cycle Graphic, without lens. H. R. Koll, 4417 South 18th St., Omaha, Nebr.

FOR SALE Fully equipped studio, doing a good business in city of 75,000. Owner has other interests and will sell at a bargain. E. E. Wentzel, 205 Savoy Theatre Building, San Diego, California.

FOR SALE 5x7 Conley camera, R. R. lens, Unicum shutter, tilting back, long focus, with leather carrying case and 6 plate holders. Sunset Studio, 23 Western Ave., Petaluma, Cal.

FOR SALE $2\frac{1}{2} \times 4\frac{1}{4}$ Ansco Speedex, latest model, f-6.3 lens. Ilex Acme shutter, \$40.00; Voigtlander Alpine camera with Collinear f-6.8 lens, Compound shutter, case and holders, \$50.00. Robert K. Walsh, 1630 E. 13th Ave., Denver, Colo.

FOR SALE EXCHANGE Burroughs Adding & Listing machine with long carriage, seven column selector with low stand, cost \$218.00 new; 5x7 Press Graflex with magazine, cost \$210.75 new; Underwood No. 5 typewriter, good condition. Want printer, enlarger and 4x5 Graflex with magazine. What have you? Send stamp. The Sturdevant Studio, Greene, N. Y.

WANTED A 4x5 Screen Focus Kodak. Must be in good working order; lens or shutter not necessary. Address, T. H. H., care Camera Craft, San Francisco, Cal.

FOR SALE Established Kodak finishing, picture framing and stationery business. If you are looking for a business of this kind, it will bear investigation. F. W. Preston, 862 E. Colorado St., Pasadena, Cal.

FOR SALE EXCHANGE 11x14 camera practically new; 8x10 camera; Penny picture camera; 2 Klay holders; Giant flash bag; 4A Speed Kodak, leather carrying case. I can use $3\frac{1}{4} \times 5\frac{1}{2}$ Graflex or Halldorson Hone Portrait flash bag. Geo. S. Anderson, Enterprise, Ore.

WANTED For cash, 5x7 Graflex without lens. Give description. Or will exchange 8x10 plate camera with wide angle lens. Harold Bennett, 173 Sussex Ave., Newark, N. J.

WANTED Universal Motion Picture Camera, tripod and magazines, 200 feet capacity, lowest cash price. Address C. T. Kirkby, 1349 42nd Ave., San Francisco, Cal.

FOR SALE One Alamo Motion Picture Camera with two magazines. Bargain for \$30. Address Northern Photo Supply Co., Minneapolis, Minn.

FOR SALE One second-hand Aristo Light with rheostat, \$25. Address Northern Photo Supply Co., Minneapolis, Minn.

FOR SALE One $6\frac{1}{2} \times 8\frac{1}{2}$ Bausch & Lomb Zeiss Portrait Unar, f-4.5, Series IB No. 8, 12-inch focus. List, \$175; like new, for \$97.50. Address Unar, care Camera Craft, San Francisco, Cal.

MUST SELL Small San Francisco studio on account of poor health. Artistically arranged, fully equipped; doing only select, high class work. Splendid opportunity for advanced amateur who is artistically inclined. Will gladly give all information needed so that the same class of work can be continued. For price and particulars, address P. P., care Camera Craft, San Francisco, Cal.

FOR SALE Excellent 4x5 revolving back reflecting camera, focal plane shutter 1/1300; complete with holders, film pack and roll holder, no lens, \$45.00. Edward Emerich, 1440 Diversey Parkway, Chicago, Ill.

FOR SALE Polmer & Schwing 3A film roll Graflex, fitted with B. & L. Ic Tessar f-4.5. Also especially fitted Wollensak, f-4 Verito 7-inch diffused focus, sole leather case. Cost \$235.00; will take \$135.00. Address A. L., care Camera Craft, San Francisco, Cal.

FOR SALE 400 back numbers of Camera Craft, Photo Era, Photographic Times, St. Louis Canadian, Wilson's, and others. W. T. Whiteford, 1143 West 42nd St., Oklahoma City, Okla.

FOR SALE 5x7 Conley camera, R. R. lens, 4 holders, solid leather case, tripod; all new except tripod, \$15.00. A. E. Howell, 726 Court St., Los Angeles, Cal.

FOR SALE Studio in good town of Sacramento Valley. Large territory, doing good business. Terms to the right party. Address E. C., care Camera Craft, San Francisco, Cal.

REFLEX With f-4.5 lens, \$55.00; Kodak with Dagor lens, \$35.00; f-5 portrait lens, \$25.00. Further particulars upon request. Chas Dursio, 25 Mulberry St., New York City.

SALE OR TRADE $3\frac{1}{4} \times 4\frac{1}{4}$ Popular Pressman Reflex, Aldis, 4.5 lens, speeds 1/15 to 1/1000, leather case, 6 holders, like new, worth \$142.00. Want saxophone or high grade vest pocket camera. A. O. Rinden, 517 Earlham Drive, Whittier, California.

POSITION WANTED By A-1 photographer. Wants a first class studio to manage or purchase. No city less than 15,000 considered. Now have the management of O'Neill Photo Co., O'Neill, Nebr. Write Kenneth DeLong, O'Neill, Neb.

FOR SALE Latest model Stereo Graflex f-4.5 Cooke lenses, roll holder, adapter, carrying case. Camera lenses and accessories are brand new. For further information write P. O. Box 1211, Seattle, Wash.

POSITION WANTED By allround lady photographer. Can take charge of studio if necessary, coast preferred. Address C. L., Care "Camera Craft," San Francisco, Cal.

FOR SALE One 5x7 view camera, new, European make, Ebony with metal trimmings, 3 plate holders, tripod, and leather case, at the price of importation. Entire outfit weighs 11 pounds including tripod; substantially built. An \$80.00 value for \$37.00. Address Box 6, Care "Camera Craft," San Francisco, Cal.

CAMERA WANTS—Continued

FOR SALE Flash cabinet, studio camera and stand, backgrounds, baby holder, print washer, rubber fixing box, etc. Jesse L. Blickenstaff, North Manchester, Indiana.

FOR SALE In County seat of 3,000, great apple and strawberry district, studio business, lot and building, H. C. Deitz, Hood River, Oregon.

POSITION WANTED Wanted, permanent position by retoucher and good all-round workman. Address Photographer, 1015 W. 5th St., Oklahoma City, Okla.

POSITION WANTED As Kodak finisher, five years' experience. Also can assist in the studio in every way. Will work cheap. Fay Elrod, Jonesboro, Ark.

POSITION WANTED By allround photographer of many years' experience; fully capable of taking charge of studio and increasing business. Or would accept operator-retoucher position. San Francisco or close to preferred. Address Box 22, care Camera Craft, San Francisco, Cal.

POSITION WANTED By experienced Kodak finisher and commercial photographer. Address W. A. Rosser, Shannon, Ala.

FOR SALE Plastigmat lens, 14-inch focus, Bausch & Lomb, \$75.00. Gabriel Moulin, 153 Kearny St., San Francisco, Cal.

FOR SALE One of the best known one-man studios in the far west. Equipped with the finest of lenses, grounds, Pa-Ko dryer, etc. All the new lightings from all angles with two powerful nitro globes, Hollywood spot light and a 15000 candle power light, combined with daylight. Prices for 8x10 portraits per dozen from \$40.00 to \$125.00, larger sizes in like proportion. Established 1913. Net profit for 1920 \$3400.00. Catering especially to the wealthy clientele. Will take an excellent photographer to handle the business. Price \$5,000.00. Address F. W., care Camera Craft, San Francisco, Cal.

RETOUCHING Correctly handled by an expert. Color specialist in portraiture and landscape. Emerson Beers, Room 363, Pacific Bldg., 821 Market St., San Francisco, Cal.

BOOKS Photographic books and magazines of all kinds bought and sold. Back issues of many magazines on hand. List sent for stamp. Please state needs, as supply on hand is continually changing. Harry A. Brodine, 777 Forest Ave., Bronx, New York.

ROLL HOLDER Wanted. Eastman-Walker 6½x8½ size, must be in good condition. State price. Address C. S. B., care Camera Craft, San Francisco, Cal.

FOR SALE Good portrait and commercial studio in Klamath Falls, Oregon. Second best town in Oregon. Stinson Photo Shop, Klamath Falls, Oregon.

WANTED Universal Motion Picture camera, tripod and magazines, 200 feet capacity, lowest cash price. Address C. T. Kirkby, 1340 42nd Avenue, San Francisco, California.

FOR SALE Pair of 10-inch condensers mounted, new; list price \$54.00, will sell for \$30.00. F. & S. enlarging camera 5x7 with easel and Ruby slide, no lens, will sell for \$20.00. Will ship either the above prepaid to any point in U. S. George C. Bied, Burlington, Iowa.

FOR SALE 4x5 plate camera, has rack and pinion, also rising front, equipped with B. & L. R. R. lens in Eastman shutter, case and four plate holders \$10.00. 3¼x4¼ Graflex plate holder \$1.25. Pair 4½-inch condensers, unmounted, \$3.00. All in good condition. H. J. Hite, 116 Genesee St., Lansing, Mich.

SALE OR EXCHANGE 2¼x3¼ Auto Graflex Junior fitted with B. & L. Tessar, series 1C f-4.5, No. 13 lens, 3 double plate holders, Graflex roll holder, film pack adapter, leather carrying case, equal to new. Want 3¼x4¼ Revolving Back Auto Graflex without lens. M. D. Wilson, Bartow, Fla.

WANTED 3¼x4¼ R. B. Auto Graflex without lens. Must be reasonable. M. D. Wilson, Bartow, Fla.

FOR SALE Graflex outfit as follows: 4x5 Revolving Back Auto Graflex with magazine plate and film holder. Sole leather combination carrying case. Camera equipped with No. 3 Verito f-4 (for pictorial work) and 5x7 R. R. (in compound shutter) lenses. Also one No. 1 changing bag, one 3-inch K1 W. & W. Filter in B glass. All practically new except R. R. lens. A \$240.00 value for \$170.00 cash. Address M. D. W., Care "Camera Craft," San Francisco, Cal.

FOR SALE Pa-Ko Dryer (Liberty Model) latest model dryer, used only a short time and in A1 condition. Reason for selling am discontinuing amateur finishing. Price \$155.00 cash. Address M. D. W., Care "Camera Craft," San Francisco, Cal.

STUDIO FOR SALE In live town of 6,000. Newly furnished, completely equipped, including Pa-Ko dryer. Selling because my health requires out door work. Let's talk this proposition over. Address Box 3, Care "Camera Craft," San Francisco, Cal.

FOR SALE Quick Finish Studio. Established in San Francisco for almost four years. Must sell on account of sickness. For particulars address Q. F. S., Care "Camera Craft," San Francisco, Cal.

FOR SALE Studio in lively California town of 12,000. Will sell at invoice. Am anxious to quit the business. Address L. C., Care "Camera Craft," San Francisco, Cal.

FOR SALE 5x7 Conley camera with B. & L. Planatograph lens 8½-inch focus in Premo shutter, 2 plate holders, leather carrying case, for \$18.00. Also 5x7 Conley anastigmat lens f-4.5, 7-inch focus in Optimo shutter for \$31.00. Joseph Bartunek, Rockville, Nebr.

FOR SALE Studio and living rooms, Mt. Vernon, Mo. "Ozark" country; great climate for the sick. Address E. E. W., Care "Camera Craft," San Francisco, Cal.

FOR SALE Want to sell at once, studio in County Seat town. Electric lights and running water. North light. Will sell at a bargain. All or partly equipped. Address A. B. Care "Camera Craft," San Francisco, Cal.

WANTED TO RENT Studio with privilege of buying, with no competition. Address J. W. S., Care "Camera Craft," San Francisco, Cal.

WANTED A partner or will sell studio. Finding that I am not able to attend to all my business alone will sell half interest to a photographer who knows his business, at a very reasonable figure, as I want ability more than money in a partner. Address J. A. Shepherd, 1024 Grand Ave., Des Moines, Iowa.

WANTED TO BUY Studio or open a new one. Address R. G. H. Care "Camera Craft," San Francisco, Cal.

WANTED FOR CASH 5x7 Graflex without lens. Give description. Or will exchange 8x10 plate camera with wide angle lens. Harold Bennett, 173 Sussex Ave., Newark, N. J.

RETOUCHING Wanted. All work promptly and neatly done. Out of town studios given special attention. E. G. Jasman, 611 E. Main St., Stockton, Cal.

POSITION WANTED First-class operator and manager having graduated from reliable art school before going into photography, desires immediate employment as operator or salesman or will manage portrait studio or Kodak finishing establishment. Have considerable experience and can furnish A-1 reference. Also have nearly a full studio equipment and may consider partner either experienced or inexperienced. Prefer something within 200 miles of Minneapolis. Address A. M. Brown, Frederic, Wis.

CAMERA WANTS—Continued

WANTED To Buy second-hand Darlot lens. Must be a bargain. Give full particulars and lowest price in first letter. Address Northern Photo Supply Co., Minneapolis, Minn.

POSITION WANTED As manager retail Kodak shop or finishing plant. Experience ten years at buying and managing same, also cutlery experience. A1 reference. A live wire. Address A. C. Mahler, 3100 Neosho, St. Louis, Mo.

POSITION WANTED As retoucher and colorist. Address Box 589, La Grande, Oregon.

SALE OR EXCHANGE $3\frac{1}{4} \times 5\frac{1}{2}$ Speed Graphic; want $3\frac{1}{4} \times 4\frac{1}{4}$ Speed Graphic. C. E. Pring, 145 West 15th St., Los Angeles, Cal.

WANTED Complete Voigtlander Stereo Alpine 10x15 c.m. Box 11 Care "Camera Craft" San Francisco, California.

WANTED 5x7 or $6\frac{1}{2} \times 8\frac{1}{2}$ Louis Gandolfi Ross Improved Portable square bellows or Sanderson type camera. State price and condition. Box 44 Care "Camera Craft", San Francisco, Calif.

A-1 All-around photographer wishes the management of a first-class Kodak finishing plant or a high-class portrait studio, or will accept position in either one. 12 years' experience. Best of references. Married. Salary, \$40.00 per week. Address L. D. K. care Camera Craft, San Francisco, Cal.

RETOUCHING Wanted, long experience. Address Mrs. M. Souder, 407 Moraga St., San Francisco, Cal.

FOR SALE Empire State View No. 2 5x7, extension bed, 24-inch draw; Turner-Reich triple convertible lens. Wollensak wide angle lens, Volute shutter, 6 plate holders, 8 $4\frac{1}{4} \times 6\frac{1}{4}$ reducers and tripod. \$35.00. Address Box 124, Korbel, Cal.

Wanted

Original Photographs of Theodore Roosevelt and of people and events associated with him

Roosevelt Memorial Association

1 Madison Avenue New York City

Spot Cash and highest prices for your camera or lens. Write brief description of what you have. We will make you a cash offer by return mail. If you wish, you may send your goods, subject to our offer, and if our offer is not satisfactory, we will prepay charges on your goods in returning them to you. Bass Camera Co., 109 N. Dearborn St., Chicago, Ill.

We will pay you the highest price for your camera or lens. Furnish us with the best description you possibly can and you will receive our trade or cash offer. If you prefer, you can send in your goods subject to our inspection and then, if our offer is unsatisfactory, we will return your goods charges prepaid. Central Camera Co., 124 So. Wabash Ave., Chicago, Ill.

Cash Bargains

3A Graflex Autog., B. & L., f-4.5 lens, very fine cond.....	\$ 98.00
3A Ansco Speedex, f-6.3 lens in Optimo Speedex	37.50
$3\frac{1}{4} \times 4\frac{1}{4}$ Rev. Back Graflex, f-4.5, case, roll holder, etc.....	125.00
$3\frac{1}{4} \times 4\frac{1}{4}$ Voigtlander Plate Camera, Carl Zeiss, f-4.5.....	57.50
$3\frac{1}{4} \times 4\frac{1}{4}$ Eastman Special Kodak, Zeiss K Anast., 6.3 in Comp....	35.00
5x7 Seneca No. 8, R. R. lens, holders, case, as new.....	27.50
5x7 Korona No. 4, R. R. lens, holders, case, as new.....	29.50
$6\frac{1}{2} \times 8\frac{1}{2}$ Conley De Luxe View, new, Anast., f-6.8 in Opt.....	49.50
5x7 Press Graflex Cooke, f-4.5 lens, very fine	150.00
Goerz V. P. Tenax Syntar, f-6.8, as new, $1\frac{1}{2} \times 2\frac{1}{2}$	27.50
Goerz C. P. Tenax Dagor, f-6.8, as new, $2\frac{1}{4} \times 3\frac{1}{4}$	52.50
Goerz 6-inch Ser. III Doppel Anast. (Dagor) in barrel.....	27.50
Goerz 7-inch original Dagor, in barrel, new	40.00
Goerz $8\frac{1}{4}$ -inch original Dagor, in barrel, new	50.00
Carl Zeiss 8x10, W. A. Protar, Ser. I, f-18, 18cm. in bar.....	27.50
Heliar 7-inch, f-4.5, in barrel, as new	50.00
B. & L. 7A Protar, 8- and 11-inch in Comp., as new.....	40.00
$3\frac{1}{4} \times 4\frac{1}{4}$ B. & L. Tessar, f-4.5, in barrel, as new	37.50
$2\frac{1}{2} \times 3\frac{1}{2}$ B. & L. Tessar, f-4.5, in barrel, as new	27.50
8x10 Vitax Portrait, f-3.8, No. 3, 16-inch focus, like new.....	90.00
Cooke-Busch-Telar, 16-inch focus, 5x7, in barrel.....	29.50
Bis-Telar, 13-inch focus, in barrel, as new	29.50

These are priced for CASH, send deposit of 10 per cent; balance C. O. D., subject to examination. Lots of other bargains.

National Camera Exchange

20-22 WASHINGTON AVE., SO.

MINNEAPOLIS, MINN.

G. E. BIDDELL & CO. CAMERA DOCTORS

53 FOURTH ST., NEAR MARKET
SAN FRANCISCO, CALIFORNIA

Vest Pocket *Autographic* Kodak, Special

*with Kodak
Anastigmat f.7.7 lens*

\$15.00

The Little Vest Pocket Kodak is to other cameras what a watch is to a clock. It has all the accuracy but avoids the bulk. And the Special Vest Pocket Kodak, with its fine Anastigmat lens, is comparable to the watch that is "full jeweled." No photographic equipment is complete without it.

The pictures are $1\frac{5}{8} \times 2\frac{1}{2}$ inches. The Kodak Anastigmat f. 7. 7 lens is made in our own lens factory and designed for use on this particular camera; it exactly fits the requirements. The result is negatives of such sharpness that perfect enlargements to almost any size, equal in quality to contact prints, can be made from V. P. K. Special negatives.

At all Kodak Dealers

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

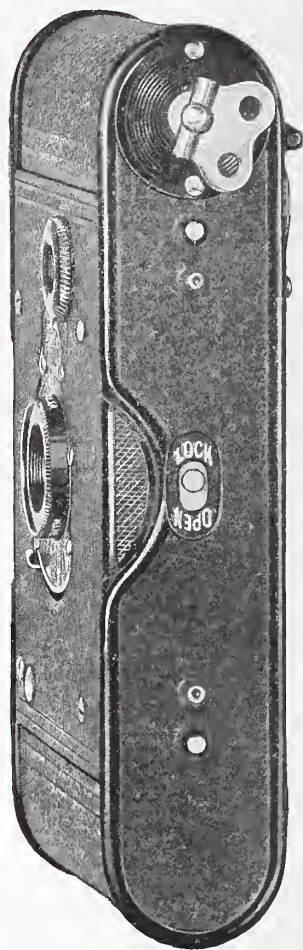
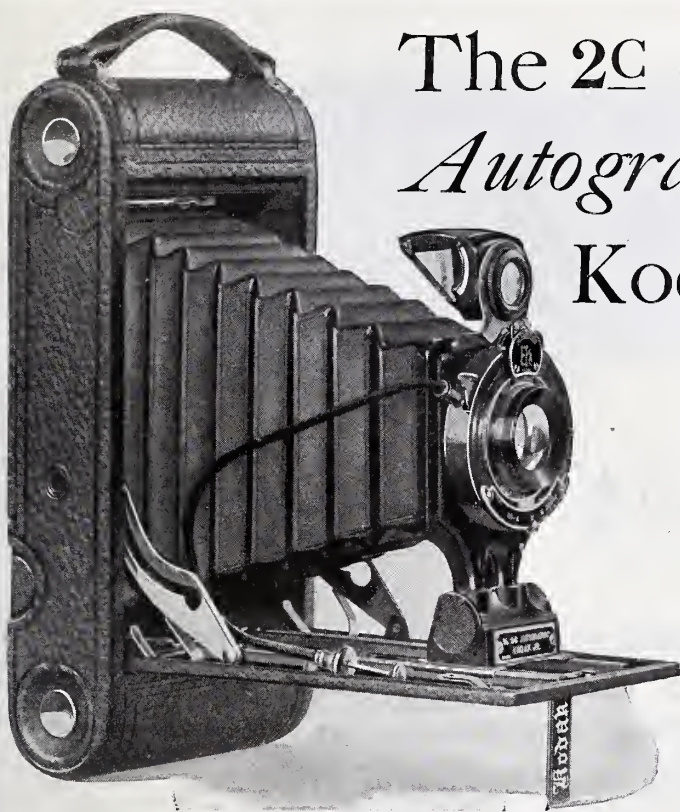


Illustration shows
actual size



The 2C *Autographic* Kodak Jr.

*with Kodak
Anastigmat
lens f.7.7*

Price,
\$25.00

THERE are, as we see it, two principal reasons why in Kodak stores all over the country, the 2C has become a photographic leader.

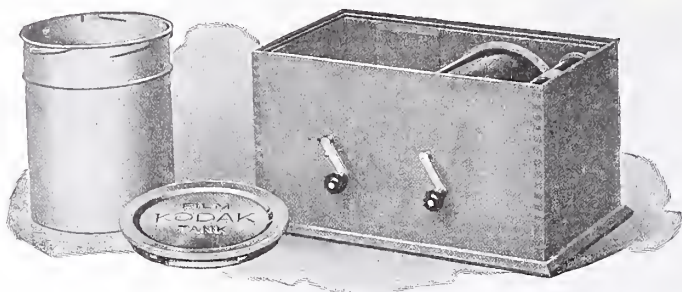
First, the size and the pleasing proportions of the picture it makes, $2\frac{7}{8} \times 4\frac{7}{8}$ inches.

Second, the excellence of its lens equipment.

On the 2C Junior, the Kodak Anastigmat lens *f.7.7*, Eastman made throughout, exactly meets every requirement of that capable camera and produces sharp clean-cut negatives from which it is a pleasure to print.

See the 2C at your Kodak dealer's

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.



Take a
KODAK FILM TANK
with you

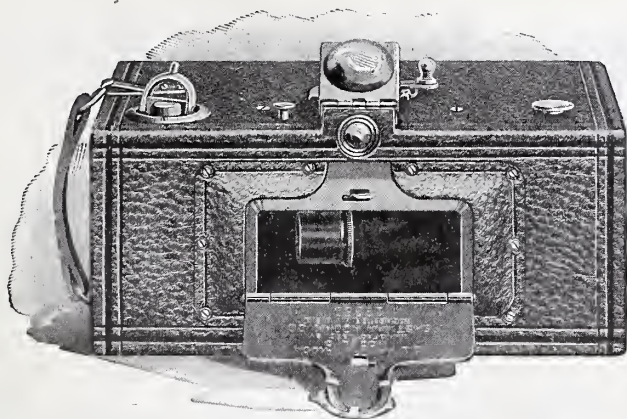
THERE is plenty of room for it in the vacation luggage and the resulting negatives, as far as development goes, could not have been improved upon.

No dark-room; develop your films anywhere, anytime.

And the outfit is so simple to work that there's nothing to it but fun.

The Kodak Film Tank ranges in price from \$3.50 up.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.



PANORAM KODAK

An entirely different type of camera that gives you an entirely different kind of picture.

Throw the lever, press the button and the lens swings through a wide arc—the whole scene from the extreme left to the extreme right is photographed in a single exposure.

The resulting picture is distinctive—long and narrow as to shape—inclusive as to picture.

Landscapes and large groups are two obvious subjects for the Panoram Kodak—but they only start the list.

The No. 1 makes pictures $2\frac{1}{4}$ x 7 inches; the No. 4, $3\frac{1}{2}$ x 12 inches. The lens of the No. 1 swings through an arc of 112 degrees; the No. 4, 142 degrees.

PRICE

No. 1 Panoram Kodak	\$20.00
No. 4 Panoram Kodak	30.00

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

*We are Paying for Pictures
and the
Cash Prizes total*

\$500.00

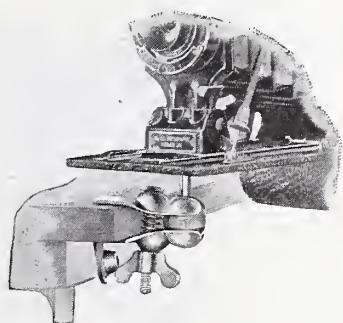
Ask your dealer for circular describing this photographic contest or write us.

**CONTEST CLOSES
SEPTEMBER 1ST**

The terms of this competition are the same as those for the competition announced last month, except that this time the pictures must have been made prior to June 15, 1921.

**EASTMAN KODAK COMPANY
ROCHESTER, N. Y.**

THE OPTIPOD



ATTACHED to any straight edge, such as that afforded by chair, table, fence, automobile, the Optipod renders full tripod service.

Used in connection with a tripod, it gives the added advantage of its ball and socket joint and the camera may be tilted to any desired angle.

Price, \$1.25

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

ELON

The best developer for
photographic papers

*We use it—we recommend it—
we make it—we know it's right.*

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

All Dealers'.



The Pocket Premo

For your vacation take a Pocket Premo—its hardly a handful—but it makes pictures of a satisfactory size, $2\frac{1}{4} \times 3\frac{1}{4}$ inches.

Press a concealed spring and snap—one motion brings the lens into *exact* focus—*instantly*.

Loads in daylight, easily and quickly, with a Premo Film Pack of twelve exposures.

An ideal holiday camera.

At All Kodak Dealers

Eastman Kodak Company

Rochester Optical Department

Rochester, N. Y.



The Graflex Camera



SHOWS you in the focusing hood a brilliant full negative size image, right side up, of the subject before the camera. As you advance or recede from the subject, you control the changing composition. Accurate focus is maintained by a slight movement of the focusing pinion—no measuring or guessing of distances.

The Graflex Focal Plane Shutter with its range of instantaneous exposures of from $\frac{1}{10}$ to $\frac{1}{1000}$ of a second and the adjustments for time and retarded automatic exposures makes it possible to secure not only good speed pictures but it makes easier the photographing of landscapes, marine views, portraits, architectural subjects and interiors.

The Graflex catalogue free at your dealer's or by mail

Eastman Kodak Company

Folmer & Schwing Department

ROCHESTER, N.Y.

Negatives by
General
C. C. Sniffen
U. S. A.



Preserving the Summer

Snapshots really worth saving, those that will hold their interest longest, must often be taken under conditions requiring a superior lens—preferably a

Bausch & Lomb

Tessar Lens

The Tessar Ic, F:4.5, is essentially a speed lens, having twice the speed of the ordinary camera lens. It enables one to take sharp, clear pictures even under the most adverse light conditions, making possible good snapshots where a common lens would necessitate a time exposure; when light is good, it will stop the fastest moving object.

The Tessar Iib, F:6.3, with twice the speed of an ordinary lens, can be fitted to almost any hand camera, and is especially recommended for use on small cameras, where the negatives are to be enlarged. It is the universal anastigmat, with speed enough for snapshots in the shade, and especially fitted for copying, enlarging and lantern slide making.

Our complete photographic lens catalog will be sent upon request.

BAUSCH & LOMB OPTICAL COMPANY

624 St. Paul Street, Rochester, N. Y.

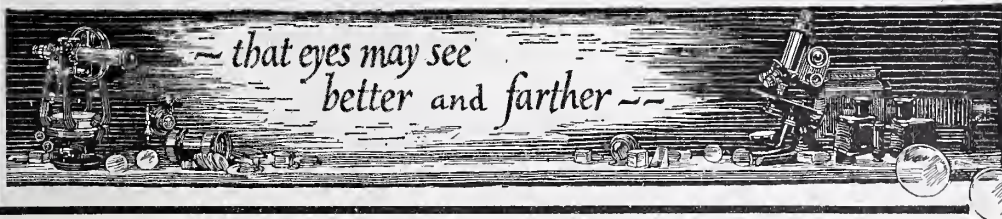
NEW YORK

CHICAGO

SAN FRANCISCO

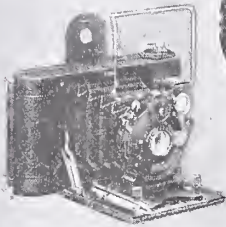
WASHINGTON

Leading American Makers of Photographic Lenses, Microscopes, Projection Apparatus (Balopticons), Ophthalmic Lenses and Instruments, Photo-Micrographic Apparatus, Range Finders and Gun Sights for Army and Navy, Searchlight Reflectors, Stero-Prism Binoculars, Magnifiers and other High-Grade Optical Products.

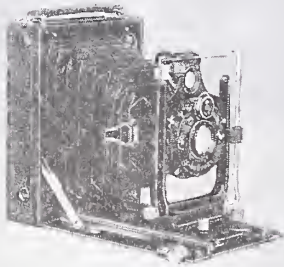


Please Mention Camera Craft when Corresponding with Advertisers.

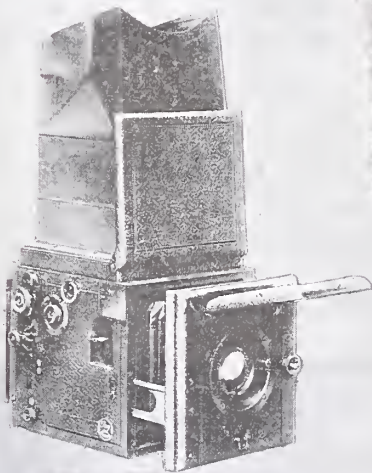
Ica Cameras



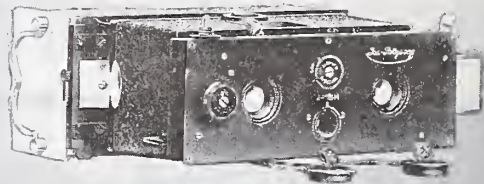
Icarette A



Ica Ideal B



Ica Reflex



Ica Polyscope

FROM the miniature Icarette to the more pretentious Ica Reflex, each Ica Camera is the most capable picture-making instrument of its type.

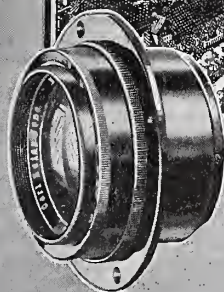
Made to make better pictures, every model has been carefully designed, substantially constructed, accurately adjusted, and embodies the many exclusive Ica features that appeal to true lovers of photography. Whatever your photographic ideals may be, there is an Ica Camera that will help you to make better pictures.

Write for the Ica catalogue; it may help solve your camera problems.

Harold M. Bennett, U. S. Agent
153 West 23rd Street, New York



The Carl Zeiss Works at Jena

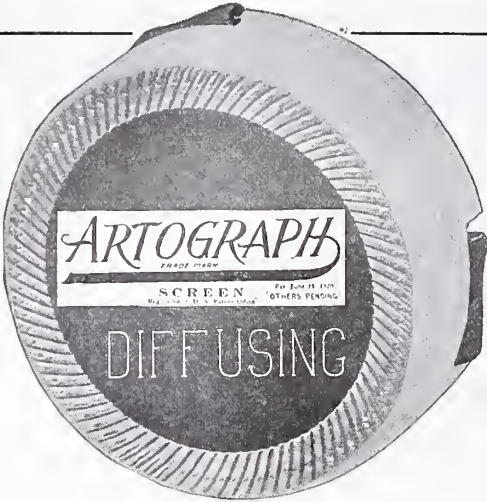


ALL articles bearing the name "Carl Zeiss, Jena" are produced exclusively by the Carl Zeiss works. Each is as scientifically accurate as human skill and exacting methods of manufacturing can make it.

The exceptional merit of Carl Zeiss photographic objectives has made them the most popular high quality lenses of the photographic world. The best cameras are equipped with Carl Zeiss lenses.

Catalogue of Carl Zeiss photographic lenses will be sent upon request.

Harold M. Bennett, U. S. Agent
153 West 23rd Street, New York




ARTOGRAPH
TRADE MARK
SCREEN
For use in front of lens
Patented in U. S. Patent Office
©TRADE, REGISTERED

DIFFUSING

MAKES ANY LENS A SOFT FOCUS LENS
And Produces Results Superior to any Soft Focus Lens
on the Market or Money Refunded
Sent Upon Receipt of Price

No. 1, will fit Lens 5 inch "Diameter".....	\$10.00
No. 2, will fit Lens 4 inch "Diameter".....	8.00
No. 3, will fit Lens 3½ inch "Diameter".....	8.00
No. 4, will fit Lens 3 inch "Diameter".....	7.00
No. 5, will fit Lens 2½ inch "Diameter".....	7.00
No. 6, will fit Lens 2 inch "Diameter".....	6.00
No. 7, will fit Lens 1¾ inch "Diameter".....	6.00
No. 7½, will fit Lens 1 5/16 inch "Diameter".....	6.00
No. 8, will fit Lens 1 inch "Diameter".....	5.00

Dealers: Write for Terms
THE ARTOGRAPH SCREEN CO.
500 5th Ave., New York



CREAM-CRAYON BROMIDES

For Distinctive Enlargements

Cream-Crayon Smooth
Cream-Crayon Rough
Cream-Crayon Extra Rough
Chamois Cream

Yield rich sepia tones
in a sulphide or hypo-alum bath

Sample dozen, 8x10, of any of the above grades
mailed on receipt of \$1.25, with Wellington
Bromide Booklet.

Complete Price-list of Wellington products
sent on request

MANUFACTURED BY
WELLINGTON & WARD
ELSTREE, HERTS

SOLE UNITED STATES AGENTS
RALPH-HARRIS & COMPANY
26-30 BROMFIELD ST. BOSTON, MASS.

PINATYPE COLORS



ORTHOCHROME
PINAVERDOL
PINACHROME
PINACYANOL
PINACHROME VIOLET

H.A. METZ & CO. Inc.
One-Twenty-Two Hudson Street New York City.
Boston Philadelphia Providence
Chicago Charlotte San Francisco

The Photo Printer you have waited for The Welsh Rapid Photo Printer

—the machine that helped make the Fox Co., San Antonio, Texas, famous as the fastest and largest finishers in the world, is now ready for the trade.

This printer has been in actual use in a number of finishing studios for over three years and operators easily make as high as

6000 Amateur Prints Daily

1000 Photos Per Hour Have Actually Been Turned Out on Post Cards and Duplicate Runs

Prints uncut rolls, cut negatives packs and plates with equal facility. Powerful adjustable printing lights, automatic print numbering device—and automatic mask register which insures

No Print Trimming

Built like a job printing press, light, durable, simple, all metal and easy—oh! so easy to operate

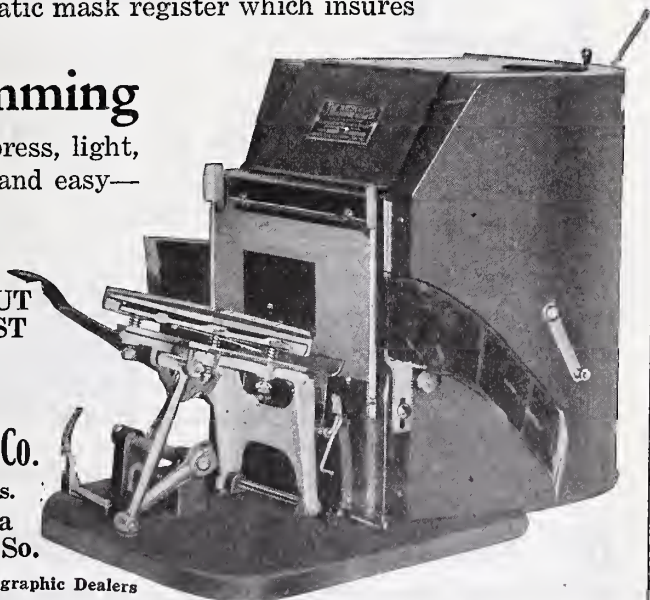
**DOUBLE YOUR OUPTPUT
AND HALVE YOUR COST
IN ONE SWEEP**

Price Complete, \$135

Cooperative Machine & Tool Co.

Exclusive Mfgs. and Distrs.
Minneapolis, Minnesota
915 Washington Ave., So.

Carried in Stock by All Leading Photographic Dealers



Please Mention Camera Craft when Corresponding with Advertisers.

ABUNDANT OPERATING LIGHT WHENEVER YOU NEED IT

IS ASSURED BY KEEPING ALWAYS
AT HAND A SUPPLY OF

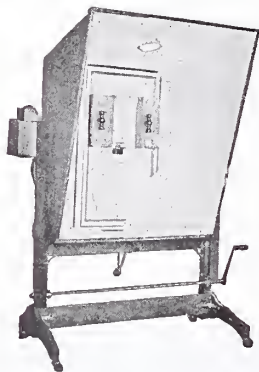
VICTOR FLASH POWDER

"The Light That's Always Available"



The new **Improved Normal Grade**, a quiet burning powder of unsurpassed illuminating-power, and of only 1-38th of a second duration, supplies an ideal exposure-light for every conceivable class of negative-making. Made also in Extra Fast and Slow (Soft) Grades. The cost per negative is a negligible item. There is scarcely a day but you can profitably use it.

We manufacture also a complete line of highest quality Hand Flash Lamps, Standard Supported Open Flash Lamps, Smoke Confining Flash Bags, and Studio Flash Cabinets.



CLOUDY DAY INSURANCE FOR YOUR STUDIO

MAY BE SECURED BY THE INSTALLATION OF A

Victor Studio Flash Cabinet

which permits the making of instantaneous exposures—fully and uniformly timed—at any time, regardless of outside light conditions. This ideal studio light combines all the necessary features of the perfect light.

SOLD ON A
GUARANTEED-TO-GIVE-SATISFACTION
BASIS

VICTOR PORTABLE FLASH BAGS

supply instantaneous illumination for photographing store, factory, home and office interiors, groups and banquets.

They thoroughly diffuse and soften the flash. Several exposures may be made without discharging the smoke. Any number of them may be fired simultaneously.

They are quickly and easily set up. Are lightweight and compact, yet very strongly and durably constructed.

Your Dealer Sells and Recommends These Products

Jas. H. Smith & Sons Company
3541 Cottage Grove Ave. CHICAGO, ILL.





WEBSTER'S WAIT A MINUTE

AN INGENUOUS DEVICE

Which, when attached to cable cord and set in action, automatically trips the shutter, thereby enabling one to take his own picture or include himself in a group.

Attached or detached in a jiffy. Weight, 1oz., vest pocket size.

At your dealer's or postpaid \$1.25

CAMERAS & LENSES

Write today for special list of lens and camera bargains and circular describing in full this magic little device.

EDGAR E. WEBSTER, Chicago,

Patentee and Distributor 155 W. Washington St.
DEALER IN PHOTOGRAPHIC APPARATUS

HALLDORSON PRODUCTS

A Full Line of Flash and Electric Lamps for Photographic Lighting

- Studio Flash Lamp
- Home Portrait Flash Lamp
- Giant Portrait Flash Lamp
- Triangle Flash Lamp
- Studio Electric Lamp
- Home Portrait Electric Lamp
- Electric Spotlights

- Style 00
- Style A ○ Flash Powder
- Style B
- Centrifugal Print Washers

Mark Outfits you are interested in and pin to your letter. We will send full information by return mail.

THE HALLDORSON CO.

1772 Wilson Ave.

CHICAGO



THE COLOSSEUM

A beautiful
8x10 Sepia
Enlargement of
this direct to you
for
75 cents

PHOTO-SERVICE-BUREAU, 1515 Central Ave., Alameda, Cal.

FORD E. SAMUEL, Manager

Commercial Work of All Kinds

PHONE ALAMEDA 2356

Banquets, weddings and parties a specialty.



ROEHRIG'S Transparent Oil Photo Colors

These Standard Colors are thoroughly transparent surprisingly brilliant in tone, quickly applied and easily removed for alterations. They combine permanency with the best and most satisfactory results.

Bring Out the Unsuspected Beauty of Your Pictures With

ROEHRIG'S TRANSPARENT OIL PHOTO COLORS

Standard Size Set of 15 Tubes, \$2.50 each—Postpaid, \$2.60

Using them is simplicity itself. You do not have to be a painter or an artist as the colors blend perfectly with the photographic image. The work is so simple that a child can produce the most pleasing results. Pictures colored with Roehrig's Transparent Oil Photo Colors are brilliant, yet soft and harmonious. It is the colors that do it. If you knew how simple and easy it is to produce these beautiful colored pictures you would have few black-and-white prints in your collection. Sold by All Dealers

ROEHRIG-BIELENBERG CO., Inc.

155 NEVINS STREET
BROOKLYN, N. Y.

Please Mention Camera Craft when Corresponding with Advertisers.

PAGET SELF-TONING PAPERS

Paget Papers are Superior to any similar papers on the market

Direct to you or through your dealer

SEND for SAMPLE PRINT and specify whether landscape or portrait desired

WILLIS & CLEMENTS

Sole American Agents

1814 Chestnut Street

Philadelphia, Pa.



ANSCO DELUXE CAMERAS, when fitted with Rodenstock's Anastigmats, are the model of perfection—a tribute to its originators.

Send for descriptive matter.

A 2 cent stamp will bring two valuable Exposure Meters—Regular and Graflex.

INSIST
on getting
RODENSTOCK
ANASTIGMAT LENSES

W. J. LAFBURY CO.
305 N. 5th Ave.—Chicago

REAL CAMERA BARGAINS

**ALL SOLD ON THE BASS
TEN-DAY TRIAL**

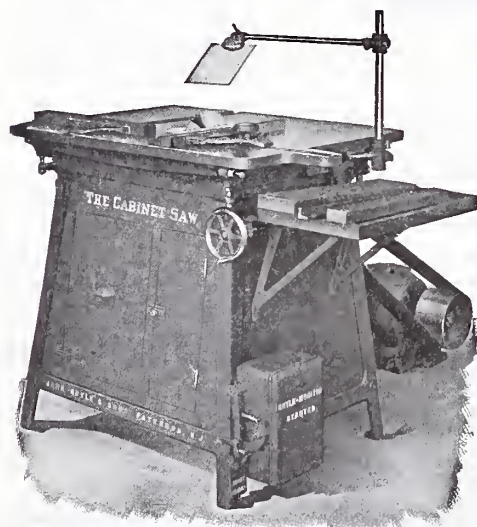
ORDER NOW!

V. P. Rexo, Goerz Dogmar f-4.5, complete	\$45.00
2¼x3¼ No. 3 V. P. Ansco Speedex; f-4.5, Anastigmat	37.50
1A Speed Kodak, focal plane, Velostigmat, f-4.5	52.50
2¼x3¼ self-erecting Ernemann, film adapter, holders, Dagor f-6.8, in Compound	32.50
2¼x3¼ R. B. Graflex Jr., Tessar f-4.5, film adapter	110.00
3A Graflex, f-4.5, Velostigmat	102.50
10x15 cm. Manufoc Tenax, Dagor f-6.8 in Compound, complete	90.00

BASS CAMERA COMPANY

109 No. DEARBORN ST., Dept. K,
Chicago Illinois

AMONG PHOTOGRAPHERS



Making photo-engraved plates there is a noticeable demand for the Royle Machines. Recent customers include a photo-supply house of international standing. The expertly proved designs and conveniences fully meet the most exacting requirements.

Write for Booklet 278

JOHN ROYLE & SONS, Paterson, N. J.

PHOTO-ENGRAVERS' MACHINERY

Pacific Coast Agents: Geo. Russell Reed Co., San Francisco, Calif.

Please Mention Camera Craft when Corresponding with Advertisers.

THE MOST ADVANCED TYPE OF SHUTTER

"Use an Ilex and avoid shutter
trouble." Write today
for our free catalog



IN THE PHOTOGRAPHIC WORLD

Showing the Famous Ilex Gear
Combination for governing
the slower and higher
speeds

ILEX OPTICAL COMPANY, 783 Ilex Circle, ROCHESTER, N. Y.

Direct Import of Metal Tripods

Direct importing from Germany enables Bass to supply these highest quality tripods to you at actual wholesale prices. Tripods are all brass, finely enameled and fitted with double spring locks to prevent their accidental closing. They are the highest grade tripod ever manufactured. We have only a limited supply.

ORDER NOW

Three sections: closed,
17½-in.; open, 43½-in.;
weight, 20 oz.....

Price \$2.20

Four sections: closed,
16-in.; open, 49½-in.;
weight, 23½ oz.....

Price \$3.00

Five sections: closed, 15-
in.; open, 53½-in., weight,
25 oz.....

Price \$3.75

BASS CAMERA COMPANY

109 No. Dearborn Street

Dept. K

Chicago, Illinois

Bromide Enlargements BLACK AND WHITE OR SEPIA TONED

To encourage subscribers to make the best use of their negatives we will send, for each subscription of \$1.00 forwarded to us direct for CAMERA CRAFT alone, five coupons entitling the subscriber to a half-price rate on a like number of enlargements.

It is better to order your enlargements unmounted on account of the liability of damage to corners in transit.

These coupons are to be used as follows: They are to be sent in before the expiration of the subscription for which they were issued. When you wish an enlargement made, enclose one coupon for each enlargement ordered, with half the amount of the regular price quoted below; viz.: each coupon represents half the price of one enlargement.

BROMIDE ENLARGEMENTS—REGULAR PRICES FOR GOOD WORK

	Unmounted
5 x 7	\$.40
6½x 865
8 x1075
10 x12	1.00
11 x14	1.25
14x 17	1.50
16 x20	1.75
18 x22	2.25

FOR SEPIA ADD 25 PER CENT

Address:
Department C
Claus Spreckels Building

CAMERA CRAFT

SAN FRANCISCO, CALIFORNIA

There is only one Monomethypamidophenol Sulphate
which is 100% pure, that is

METAGOL "CIBA"

Made by the Society of Chemical Industry in Basle, Switzerland;
makers of standard chemicals since 1864.

AT YOUR DEALERS OR WRITE US

Leading photographic paper manufacturers are recommending and
three-fourths of the moving picture industry are using

Metagol "Ciba" & Hydroquinone "Ciba"

"There's a Reason"

TRADE



MARK

REGISTERED

Ciba Company, Inc., Cedar and Washington Streets New York City

WONDERFUL BARGAINS

HESS-IVES CAMERAS



100—3¼x5½ Hess-Ives Telescopic Box Cameras, Color Corrected 6½-in. focus Symmetrical Lens, Wollensak Automatic Shutter, working from one second to 1/100th, with cable release, covered with fine grain leather. Original price when sold as color cameras —\$55.00. We sell them as ordinary cameras, price\$12.50

100—3¼x4¼ Hess-Ives Box Cameras, Color Corrected Lens in focusing mount, Wollensak Automatic Shutter\$10.00

90—3¼x4¼ Hess-Ives Box Cameras Single Lens, T. I. B. Shutter.....\$6.00

One Plate Holder is included with each of the above Cameras.

FILM PACK ADAPTERS: 3¼x4¼, \$1.50 each; 3½x5½, \$2.00 each.

A FEW SPECIALS

Genuine Ruby Lamp, takes ordinary electric bulb, just what you want, by mail.....\$ 1.50

Burke & James Enlarging Lanterns, Style A-3, 9-in. condensers..... 75.00

Ingento Platforms for above enlargers 12.50

Heyde Actino-Photo Meters, with Instruction Books, postpaid, special at..... 5.00

NEW YORK CAMERA EXCHANGE

109 FULTON STREET

NEW YORK, N. Y.

Please Mention Camera Craft when Corresponding with Advertisers.

Use
VULCAN
ROLL FILM

The Right Start for
Successful Picture-Making

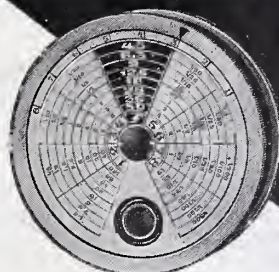
Vulcan Films are made to fit any standard
Roll Film Camera

Send for new 1921 Catalog
Now Ready!

Defender Photo Supply Co., Inc.
Rochester, N. Y.

Branches at Boston, New York, Philadelphia, Chicago,
Kansas City, Minneapolis and Toronto

DEFENDER



**HEYDE'S
ACTINO
PHOTO-
METER**

***Eliminates Guessing
in Photography!!***

The simplest, most effective and most accurate instrument for determining correct time for exposure. Easily and quickly manipulated; compact and always ready for use.

No Sensitive Paper Used For Tinting

Exposure table complete on dial.

Essential to the Photographer who wants perfect pictures.

Order by mail or from your dealer.
Write for descriptive booklet.

**HERBERT
& HUESGEN
CO.**

New Vert Pocket Model

Size Dia. 2-3/8" x 13/16" Thick

Price \$10.

18 East 42nd Street
NEAR 5TH AVE., NEW YORK.

Dealers: A postal
will bring our
special offer.

PATENTS

Send sketch and description
for Useful Booklet and Free
Advice as to patentability.

MAXWELL STEVENSON

Attorney in Patent Causes

905 Victor Building Washington, D. C.

How to Obtain Dramatic Effect

Watch the progress of stagecraft and acquire the peculiar ability to reproduce the true dramatic effect. Most of the leading photographers read **THE DRAMA** Five months' trial subscription, \$1.

THE DRAMA, Athenaeum Bldg., Chicago

USE THE
Milner
**LIGHT
GAUGE** FOR



CORRECT EXPOSURE

SIMPLE AND CONVENIENT

MEASURES LIGHT INSTANTLY

Suitable shutter settings automatically coincide, and directly read.

No SENSITIZED PAPER OR RENEWALS

No EYESTRAIN, NOTHING TO LOOK THRO.

No CALCULATIONS, REFERENCE FACTORS, OR GUESSWORK

Direct to you by mail, postpaid, or through
Your Dealer

Price, \$1.50

MONEY BACK IF NOT SATISFIED

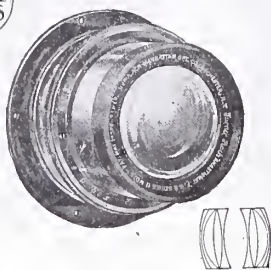
G. M. MILNER

525 Market St.

San Francisco, Calif.

Dealers write for trial dozen

Pat. 11/12, '18.



Please ask your dealer for a copy of our

1920 Catalogue

KORONA CAMERAS, PHOTOGRAPHIC
LENSES AND OTHER APPARATUS

If your dealer is not supplied with these catalogues
request him to send for some or give us his name and
address and we will send him a supply promptly.

Gundlach-Manhattan Optical Company

766 Clinton Ave. S.

Rochester, New York

Hammer Plates fill every requirement of modern photography. They excel in speed, crispness, color-range and keeping qualities. Their record proves their worth. Special brands for special needs.

HAMMER'S SPECIAL EXTRA FAST (RED LABEL) AND EXTRA FAST (BLUE LABEL) PLATES FOR FIELD AND STUDIO WORK, AND HAMMER'S EXTRA FAST ORTHOCHROMATIC AND D. C. ORTHOCHROMATIC PLATES FOR COLOR VALUES. :: :: ::



HAMMER DRY PLATE COMPANY

OHIO AVE. and MIAMI ST.

ST. LOUIS, MO.

Please Mention Camera Craft when Corresponding with Advertisers.

HIGGINS'

Photo Mounter Paste



The kind you are sure
to use with
continuous
satisfaction

AT DEALERS GENERALLY

Chas. M. Higgins & Co.

BRANCHES: MANUFACTURERS
CHICAGO 271 Ninth St., Brooklyn, N. Y.
LONDON

Sell Your Photographs

We buy photos that have live news value; also photos of unusual things and interesting personalities. Get out your collection and see how many photographs you have that would be of interest to the general public. We will arrange the publication. A short description must accompany each print or negative. (Negatives preferred.)

LOTHERS & YOUNG
PICTORIAL NEWS SERVICE

251 Post Street

San Francisco

California

ADVENTURE There are many strange and wonderful sights in the distant lands beyond the seas which can be seen by you if you join the Universal Photograph Exchange. Mutual help and Competitions. Send a dollar at once for One Year's Subscription to Secretary, 4, Gayton Road, Hampstead, London, N. W. 3, England.

SELL YOUR PRINTS at \$3.00 to \$10.00. Our course in Photographic Journalism teaches how and where to sell. Complete \$1.00, worth \$100.00. W. Clement Moore, 110 W. 2nd St., Moorestown, N. J.

Make Haste!

While we're in a position to furnish you a Kalosat Lens promptly, take advantage of it. Equip your camera with this better lens and give it a real workout. Use the proper technique and be painstaking and you'll be well pleased with the results. You will really feel repaid many times over and made to realize why they're all boosters of Kalosat—the "Spectral Diffusion Lens."

▲ ▲ ▲ ▲ ▲

SEND FOR OUR NEW CATALOG "N" OR INQUIRE OF YOUR DEALER

▲ ▲ ▲ ▲

HANOVIA LENS LABORATORIES

NEWARK, N. J.

GRIPPIT Sticks it

Grippit is the adhesive which cannot wrinkle or curl your mounts.

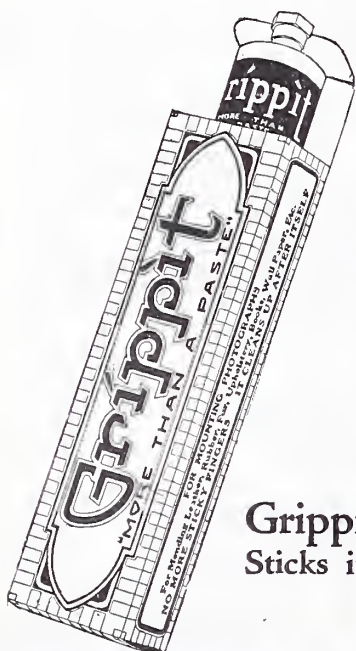
Grippit is waterproof, flexible, transparent. It never dries up or spoils in the tube.

Grippit has scores of vacation uses other than photograph mounting. Try it for mending a torn camera case, for patching a canoe, for mounting specimens, for labeling glass or metal, for repairing an inner tube.

For sale by all photo supply dealers. 25c in tubes or \$1.50 in pint cans.

Dewey & Almy Chemical Co.

76 Harvey St., No. Cambridge, Mass.



Grippit!
Sticks it

QUALITY LANTERN SLIDES



QUALITY SLIDES from your own negatives or copy. Highest class coloring and my work is always guaranteed.

Always on hand a large stock of slides on various subjects. Especially select series of nature studies

Price List Gladly Sent
on Application.

A. E. DAVIES

1327 GROVE ST.

BERKELEY, CALIF.

THE LARGEST and most comprehensive CATALOGUE

ever offered to camera enthusiasts. Your copy is ready. Send in your name and address right now, while you have this notice before you. Cameras, kodaks, lenses and supplies of every description are listed in this catalogue, at the very lowest possible prices.

EVERY ITEM GUARANTEED

besides, you have the privilege of testing the outfit you purchase for ten days, after which time, if you are not satisfied, you can return it and we will refund in full.

REMEMBER, TOO, THAT WE PAY TRANSPORTATION

on all orders amounting to \$5.00 or over for new cameras, kodaks or lenses, excluding view outfits and accessories.

WE BUY OR TRADE OUTFITS

Perhaps you have one you wish to trade or sell. Send in a complete description of it and we will make you the very best offer in cash or trade.

Central Camera Co.

Dept. B-30

124 S. Wabash Ave.

Chicago, Ill.

Lumiere Autochrome Plates

For Direct Color Photography

Any amateur, with an ordinary camera, and no extra equipment, except a special lens filter, can obtain pictures in colors true to nature.

Griffin Plate Developing Tanks

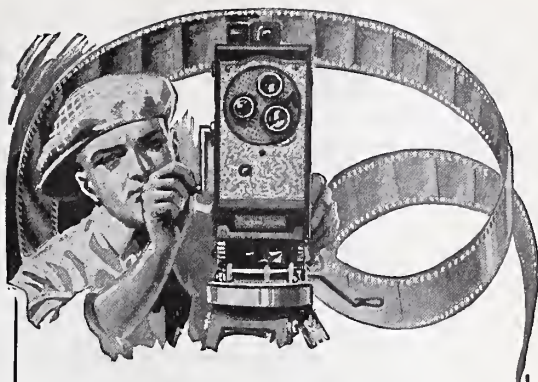
Plates are put in in the darkroom, or in a hanging bag, and all other operations are carried out in the light.

Send for Circular

R.J. Fitzsimons

75 Fifth Avenue

New York, N. Y.



It is easy to make motion pictures with a

UNIVERSAL MOTION PICTURE CAMERA

The camera preferred by the U. S. Government, leading explorers, travelers, photographers, etc. It is strong, compact, light in weight, reasonable in price.

FREE Book on MOTION PHOTOGRAPHY

Write at once for our FREE book which tells you how to take motion pictures—the handiest and most complete book on the subject. Universal cameras and projectors fully described.

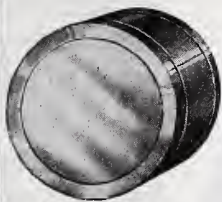
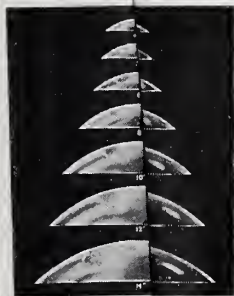


Distributors in
principal cities

Burke & James Inc

266 East Ontario St., Chicago, Ill.

Manufacturers of REXO Cameras, Film and
Photo Supplies



Photographical Condensers

for
Enlarging and Reducing

Highest Grade Imported French Optical Glass in all meters and foci—50% less than market—mounted or unmounted.

Write pt. M for prices.

J. H. B. DOLDSON ENTERPRISES

160 West 45th St.
New York

Special Rate, Photographical Supply
Dealers

A NEW PA-KO AID FOR PORTRAIT PHOTOGRAPHERS

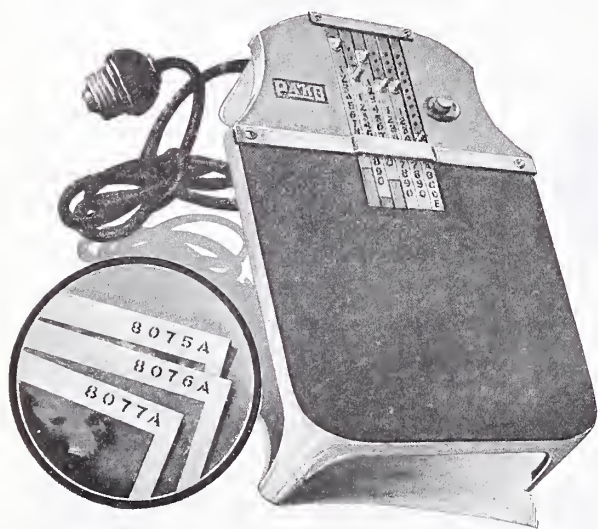
SLOW, messy stylus marking is eliminated thru the PA-KO Negative Marker.

This new PA-KO timesaver marks negatives six times as fast as the old stylus method.

Its sharp, distinct markings cannot possibly be confused---they are *cleancut* and *businesslike*.

Operation is fast and simple. Numerals and letters are die-cut into movable brass slides. Slides are adjusted to desired number; negative is placed on felt-covered platform, and the electric light button is pressed.

That's all there is to it. The number is *exposed on the negative* and develops with the subject.



The PA-KO Negative Marker is built of aluminum for a lifetime of service. Comes complete with lamp cord and plug, ready to attach, for \$20.00.

Let the PA-KO Negative Marker handle a time-stealing job—giving you clean-marked, uniform negative in perfect order. Then put this saved time on *bigger work*.

Order your PA-KO Negative Marker immediately for prompt delivery.

THE PA-KO CORPORATION

MINNEAPOLIS

...

MINNESOTA



Piccolette — The Perfect Vest Pocket Camera

A step further in Vest Pocket Film Cameras, simplicity of operation, generally sacrificed for compactness, being enhanced rather than neglected.

The Piccolette is of such ingenious design that it is as conveniently made ready and operated as its big brother, the Postcard Pocket Camera. A departure in the construction of the film loading device goes far to assure convenience in loading and elimination of torn rolls. The spool holders and film guides (an improvement which keeps the film always perfectly flat) can be completely withdrawn for loading.

Sturdily constructed of metal throughout, with genuine leather bellows and handsomely finished. The Piccolette sustains the high standard of Contessa Nettel quality.

PRICES:

Achroma Lens, F-11.....	\$12.00	Teronar Anast., F-5.4.....	\$32.50
Citonar Aast., F-6.3.....	25.00	Carl Zeiss, Ser. 11B, F-6.3.....	70.00
Carl Zeiss, Ser. 1C, F-4.5.....	\$75.00		

For Sale by prominent Dealers

G. GENNERT, DISTRIBUTOR

NEW YORK
24 and 26 143th St.

CHICAGO
139-141 N. Wabash Ave.

LOS ANGELES
203-10 S. Spring St.

SEATTLE
2102 First Ave.



PERMANENT — TRANSPARENT — ECONOMICAL

SMPLICITY

the keynote of

PROBUS-MANDEVILLE PHOTO OIL COLORS

These brilliant and permanent colors are easily applied, blend perfectly and may be changed as desired without injury to the surface of any print. No special artistic skill is required to obtain beautifully colored prints by this method, in fact, knowledge of coloring whatever necessary. The work is interesting, enjoyable and profitable.

No. 0 Set costs, containing ten colors in individual pans with color stick and complete instructions \$1.25

DEALERS
WOLF & DOLAN
MANUFACTURERS

220 Post St. San Francisco

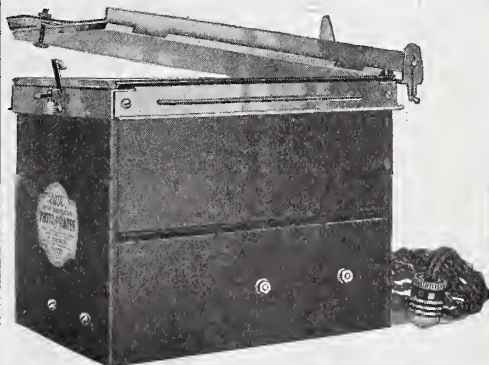
ALL METAL

RWK PATENTED

PHOTO-PRINTER

FOR PLATES AND FILMS

PRODUCES RESULTS ECONOMICALLY



SIMPLE, COMPACT, LIGHT AND SAFE

SIZE 6 1/2 x 8 1/2 PRICE \$8.50

Ask any dealer or write us for facsimile folder.

R. W. KITTREDGE CO.

812 W. Superior St.

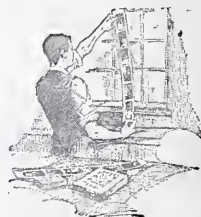
CHICAGO, ILL.



THE MORE YOU EXPECT
of a paper for amateur finishing, the better pleased you will be with the results from HALOID Kalo (slow speed), or HALOID Rito (fast speed). Made for the finisher who demands a great deal from photographic papers and appreciates quality when he gets it.

These prices offer economy:

Per 500 Sheets		
Single Weight	Size	Double Weight
\$2.90	2½ x 3½	\$3.75
3.50	3½ x 4½	4.40
4.00	3½ x 5¾	4.95
4.75	4 x 6	5.60
7.25	5 x 7	9.00



HALOID

KALO AND RITO
(Slow Speed) (Fast Spd)

New York Office
225 Fifth Ave.

The HALOID Co.

ROCHESTER, N. Y.

Boston Office: 101 Tremont St. at Bromfield

Chicago Office
68 W. Washington St.

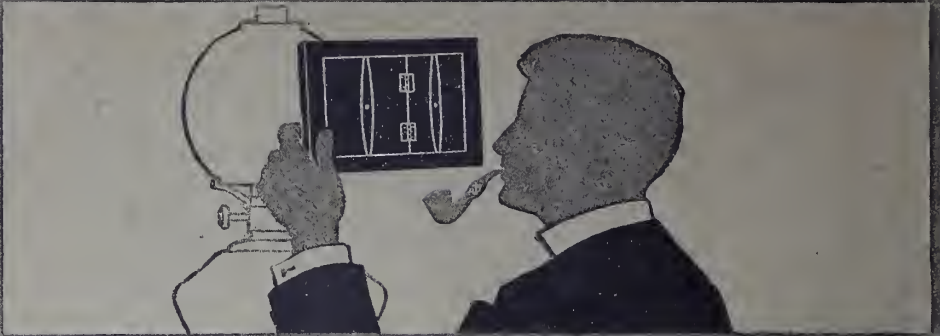
HALOID

KODAK



You don't re-develop this paper—the rich, warm green that puts added realism in your landscape and marine pictures is secured by methods very similar to those employed with Velox—and just as simple.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.



Prints by Gaslight

The argument for
VELOX

is simply this—it's a paper
that will give you
better prints

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.